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ABSTRACT

This final report of an 18-month workplace literacy project (a partnership of Mercer County Community College, a large automobile components parts manufacturer, a hospital, a physics laboratory, and a chemical plant) contains the following: (1) and introduction; (2) a performance report on nine goals of the program; (3) a schedule of accomplishments, including a month-by-month plan of operation; (4) a report of participant outcomes; (5) the results of a partner assessment survey; (6) a description of dissemination plan; (7) an external evaluation; (8) a list of key personnel; (9) a summary of the impact of the project; and (10) sample evaluation survey questionnaires. Outlines are provided for the following courses: reading; written and oral communication; basic science; work survival skills; English in the workplace; industrial English as a Second Language; basic math I, II, and II; becoming an active listener; basic writing; math for front line supervisors; English as a Second Language for hospital staff; winning telephone tips; time management; how to conduct a staff meeting; managing stress; creative problem solving; business writing; physical sciences overview for lab technicians; reading a blueprint; customer service; presenting a positive self-image; and personal productivity. Following the report are supporting documents, including teachers' inservice workshop materials, Handbook for Workplace Literacy Instructors, brochures and other materials used to publicize the courses, and lists of competencies for some of the positions in which workers, who participated in the program, are employed. (CLM)

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ED351578

Mercer County Community College
Workplace Skills Project
Grant Period March 1, 1991 - August 31, 1992

FINAL EVALUATION

Project Number V198A10206
Grant From the U.S. Department of Education

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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Mercer County Community College
National Workplace Literacy Program
1991-1992

Performance Report

I. Introduction

As partners, Mercer County Community College, General Motors Inland Fisher Guide Plant, St. Francis Medical Center, and the Princeton Plasma Physics Laboratory sought federal funds to assist in the development of a model program of workplace literacy that was designed to assist 600 adult workers who had inadequate basic skills to perform their jobs and/or were ineligible for career advancement due to lack of skills. The project actually served 625 students in over 2,000 hours of instruction.

Each partner made a significant contribution to the program and has committed to the ongoing success of the program by signing a letter of commitment extending the program using their own funds. During the short grant period GM alone contributed more than $600,000 in in-kind contributions. As each industry moved towards high technology in the application of its work, the necessity for the development of a workforce with strong skills and high levels of functional literacy became critical. Not only was the economic viability of these adult workers at stake, the economic competitiveness of the employers, the Trenton area, and the region were at risk unless the gap between current levels of functional literacy in the workforce and the rising demands for literacy-based job skills could be bridged. The workplace literacy training that started with this grant is a first step to a solution that must be on-going.

The three organizations had diverse literacy needs and that diversity allowed the college to develop a contextual approach to literacy that related basic studies to tasks at work. The proposed project was directly related to literacy requirements and actual jobs at the three sites. By establishing a partnership among an educational institution, a large automobile components parts manufacturer, a medical center and a research laboratory, the project includes all the elements that are required to develop a program that can be replicated in a wide range of workplaces. Mercer requested permission to add a fourth site, Rhein Chemie, a chemical manufacturer, to the project. Rhein Chemie was at risk and was considering leaving the Trenton area if help could not be provided. Without additional cost to the program the college was able to serve Rhein Chemie and believes the program was enhanced by that addition. Curriculum for the project was developed after a literacy adult and DACUM. (See Attached Curriculum). The DACUM process was conducted for each job category targeted in the program (see attached). An orientation and assessment program was conducted, and the college offered multiple training cycles at each facility.

The college provided a strong support service program in conjunction with the instructional workplace literacy program to increase retention. Employee participants were assessed and individual education plans were developed to outline educational programs. Both formative and summative evaluation procedures were used to assess specific program objectives.

II. **Accomplishments**

To advance the Workplace Literacy (WPL) project the plan of operation identified nine Program Goals and related objectives. A review of each goal, related objectives and a summary of project accomplishments for each participant follows.

Goal 1:	Assess the workplace literacy needs of employees targeted for intervention at General Motors, St. Francis Medical Center and at the Princeton Plasma Physics Laboratory.
Objective 1.1:	Review the results of preliminary needs assessment conducted at each of the businesses.
Objective 1.2:	Conduct literacy audit of targeted jobs.
Objective 1.3:	Analyze content information and difficulty levels.
Objective 1.4:	Conduct preliminary analysis of language proficiency, literacy levels, and education backgrounds of selected employees.
Objective 1.5	Conduct support services needs assessment.
Objective 1.6	Administer assessment instruments to a sample of workers in targeted jobs for norming purposes.
Objective 1.7:	Complete analysis of all assessment information.

Findings:

In cooperation with the Human Resource Management of each company, supervisors, and representatives of the union at GM, we performed a needs assessment to determine the kinds of literacy tasks workers were asked to perform on the job. We informally asked the educational level and language proficiency of the workers. Then we identified the gaps between literacy demands and literacy skills.

We observed workers on the job and collected literacy samples in order to identify literacy tasks and language interactions and document workers' needs to read, write and communicate.

From each company we collected printed materials that workers needed to use on their job such as manuals, schedules, forms, graphs, blueprints (PPPL), and computer readouts. We noted the tasks that needed to be performed in accordance with written materials such as setting or adjusting dials on a machine, measure materials, medical charting, and inputting information on charts. There were many writing tasks that needed to be performed at each site including filling out forms, letters, charts, etc.). Listening comprehension was required at all companies to interpret literacy tasks such as asking for clarification or explanations, reporting back, explaining a process to a third person, or indicating problems in the materials. All this information was documented and collected and then used in the DACUMs.

In addition to assessing literacy tasks and print materials, we tried to determine the general level of language proficiency and literacy skills that workers possessed, especially for workers who did not have English as their native language. We interviewed the employees, and their supervisors to see how comfortably workers used language and print. In our Individual Education Plans we obtained information on the past school experiences of workers.

We analyzed and classified the documented and collected literacy tasks according the needs of the companies. Then we identified the content knowledge necessary to understand or express the necessary information for the job. We emphasized vocabulary, technical jargon, and needed background of knowledge. We also assessed the difficulty of the structure and the relative clarity of expressions and style.

We then analyzed the collected data from the needs assessment and used it in conjunction with the DACUM to develop the proper curriculum for the companies. The needs assessment was also shared with teachers and counselors at the initial pre-service and then in-service sessions.

As part of the needs assessment, workers were interviewed to determine the essential support services required to assist them in retention and achieving success in the program. Approaches such as a "no mandatory homework" policy, classes on-site during the workday, a variety of programs offered, and warm, friendly teachers were offered as a core part of the program. In addition, for employees who needed other services such as career counseling, we made referrals to other sources.

Manufacturing:

An education survey was conducted at General Motors Inland Fisher Guide to assess the literacy levels and education backgrounds of selected employees. Initially, we administered the New Jersey Basic Skills Placement Test (NJBSPT) to a sample of employees. While results were not dissimilar to those of other standardized tests available, we made the decision to discontinue using this instrument after discussing the emotional distress the test caused the employees. At this point the ABLE test became the standardized test for all sites because employees felt that the NJBSPT was too academically based, and therefore too threatening. The ABLE was used for both pre and post tests. Additionally, each course had pre and post tests and competency based measured throughout.

Results of these tests indicated that the majority of GM employees fell within the GED level (9th-11th) with some below 6th, and some above 12. While employers felt that there were some employees who fell below the Adult Basic Education (ABE) level, these people were not initially located. They subsequently were added to the program as the level of trust for the program increased.

GM targeted the "Quality Operators" for training since they were the largest group of workers within the plant. The WPL team shadowed these employees to see exactly what these employees did on a daily basis, and what were their educational and vocational skill requirements for their job. This process, coupled with the DACUM allowed an in-depth analysis of the job-related educational needs of the targeted group. This process included observing numerous "Quality Operators" at their jobs, asking them questions, obtaining all written materials used, and relating these activities to basic skill needs.

General Motors Inland Fisher Guide plant had few day-to-day requirements for reading and math. That is, although the materials available for the employee were written on a 9th through 12th grade reading level, the average employee did not need to read this material on a daily basis. However, the awareness that the automotive environment is changing rapidly, and employees who are unable to read at least high school level will slow progress was evident. The new equipment being introduced into the company not only demands the ability to read critically and write accurately, but also requires some knowledge and understanding of computers, mathematics and statistical controls. This ability to understand mathematical functions leading to application in statistical process control will be critical for all future technological improvements. The literacy audit verified the expression that "smart machines now need smarter hands to operate them". As with all companies, the ability to communicate with peers and supervisors, to follow and give oral directions, and to understand basic science and safety principles was vital for this industry. To address the needs of this diverse workforce, ESL classes focusing on following directions, jargon and work

survival skills also had to become part of the manufacturing training program. Science Information explaining how machines operate, how chemicals function, and safety issues were also needed.

Many of the employees are of Polish descent and have difficulty speaking and understanding English in the worksite. Smaller portions of employees are Korean, Brazilian, or Latin or Central American. Despite their being in the US for many years, their acquisition of standard English needed to be improved to increase their job competency at GM.

Additional meetings with supervisors, managers and union personnel underscored the long-range needs for a skilled workforce. Since the average length of employment for GM employees is 6-10 years, these employees knew the routines and could fulfill the daily requirements today. However, in the competitive manufacturing environment these employees now needed to interpret graphs and charts that detailed production standards, react to computer readouts that documented tolerance of errors, contribute both verbally and in writing to the needs of the company, and work productively with co-workers and peers who often spoke other languages. The management saw the need for an organization of trained employees as their best investment in this continually changing work environment.

Research - Princeton Plasma Physics Laboratory

Princeton Plasma Physics Laboratory is renowned worldwide for its scientific and technological expertise in the field of magnetic fusion energy. Therefore, the complexity of written material was especially critical to technicians, secretaries, and sometimes maintenance staff who handled material written at a fourteen+ reading level. A minimum of a high school reading level is required by the DOE for employment at nuclear facilities. However, the reality is that often the reading level is skewed by the complexity of the writing style, as well as the subject matter.

Technical jargon and mathematical skills were required to operate in this highly sophisticated nuclear fusion laboratory where government regulations and safety requirements controlled the day-to-day operations of the entire staff from the maintenance crew to the highest level of management. We found that even the janitorial staff needed to read highly technical manuals (14+) for proper disposal of chemical waste and other products that were essential for this organization. While technicians needed to read technical manuals in order to follow written directions, clerical staff also had to read, understand and edit technical reports written by their supervisors for internal consumption.

Math requirements ran the gamut from basic arithmetic functions, fractions, decimals, percentages, exponents, averages, scientific notation, dimensional analysis, to area and volume computation and nomograms. Science, which is

the prime business of PPPL, required an understanding of physical, chemical and electrical science instruction. (See Appendix for List).

All positions required problem solving and critical thinking to handle the research element of their daily tasks. In addition, written and oral communication proficiency were equally needed to help employees achieve higher levels of job competency. The most critical function of preparing these employees for work on the tritium (nuclear fusion) project reflected the need for basic instruction in the academic content areas found in this grant project. At the time of instruction there were no targeted employees in need of English as a Second Language, although many foreign scientists went to other institutions for this help.

Initially, technicians from all areas of the company were targeted for instruction. However, because of internal production needs for this nuclear fusion project this staff was often unavailable for training. Therefore, we increased our target groups to include secretaries and maintenance. staff

Hospital - St. Francis Medical Center

St. Francis Medical Center had a range of reading requirements from 6th grade (dietary menus) to 14+ for supervisors, technicians and some clerks. This range of need, coupled with a strong requirement for effective oral and written communication, problem solving and critical thinking became the focus of their skills program.

For training purposes, three target areas were selected: dietary and environmental services, clerical, and front line supervisors. Each targeted group required different educational needs, as determined by shadowing, and the DACUM process.

The dietary services and environmental services groups were employees who had less than a high school education. The majority of the group included Haitian immigrants who were in the US less than 5 years, could not speak or understand English efficiently, could not understand work-related written or verbal communication in English, and would not be able to be promoted within the organization without these skills.

The clerical staff included in and out patient services, unit clerks (secretaries), and emergency room clerks. These positions dealt with in-person and telephone customer service. Their work pace was extremely fast and required a quick reaction to tasks that were critical to the patient's well-being and the hospital's position within the community. Therefore, the ability to read and understand the general definitions of medical terminology, write accurate records, understand written communication, problem solve, think critically and accurately, and communicate with patients, peers, supervisors and patient family members was

critical. Reading requirements of 10th through 14+ level were required to read and interpret hospital material. A program needed to be established to address these needs for accurate oral and written communication, medical terminology, business writing, basic math skills, dealing with the public, dealing with stress in a work environment, and problem solving and critical thinking.

The final target group, front line supervisors, was selected both to motivate others to join the program, and to address their critical need for improving communication skills. Front line supervisors were required to read and interpret written material, write memos, conduct meetings, prioritize tasks, communicate with others at all levels of the organization, and problem solve. The literacy audit determined that reading levels for this position were 12 to 14+ level, and demanded a higher level of critical thinking and organizational skills to be able to function successfully. A strong communication program was needed as well as business writing and record keeping.

Manufacturing - Rhein Chemie

Rhein Chemie was added as a site in June of 1992. Because we only had three months to work with this company we targeted the greatest needs, as indicated by the literacy audit and DACUM. This company deals with highly toxic chemicals, and needed employees who could read instructions accurately on a 10th-12th grade level, with chemical terms and jargon relevant to their industry. They needed to follow and give directions correctly, speak and understand English well enough to respond to day-to-day work situations as well as chemical emergencies. The ability to problem solve and discriminate differences within the written directions were a vital part of their job which was to operate large, complex and often potentially dangerous machinery. In addition, as the company gears up for the technologically changing chemical manufacturing work environment, their employees also need to refine and expand their basic skills.

In analyzing the overall literacy needs of the four diverse workforces, the following areas were identified in the literacy audit:

Language Based Literacy

- -understanding structure and content of instructions
- -reading and interpreting work orders
- -reading and following specifications accurately and quickly
- -completing forms and documenting work processes and accomplishments
- -following directions for operating machinery and equipment
- -being able to read and understand output
- -monitoring and verifying correctness of work done
- -recognizing form and function of particular materials

Graphic Literacy

-interpreting charts that document job processes and locating sources of errors
-understanding graphic information
-reading, and interpreting graphic instructions
-reading information based on graphs, charts and tables

Content Knowledge

-recognizing work related vocabulary terms that appear in instructions
-recognizing and comprehending technical terms used in quality improvement processes

Numerical Literacy

-understanding specifications
-understanding and implementing techniques required for their specific task using specific math skills
-understanding scientific notation as applied to science and engineering technologies (PPPL)

Goal 2:	Program Development
Objective 2.1	Conduct DACUM sessions at each job site for each of the targeted job categories.
Objective 2.2:	Develop program components
Objective 2.4:	Develop content and simulation materials for individualized and computer assisted laboratory.
Objective 2.5:	Develop personal awareness workshops
Objective 2.6	Develop material for small group sessions.

The DACUM (Developing a Curriculum) is a three day workshop that develops an understanding of what a particular job title includes. It develops an initial job description chart from this information and, in turn, uses this information to develop an initial curriculum plan. The initial curriculum plan is a fairly complete first step in the curriculum development process. All the information is obtained from the employees who are performing these job tasks and their supervisors who develop the concept that workers are experts in what they do, and curriculum should reflect this idea.

Utilizing the needs assessment data, the DACUM process was conducted for selected targeted job types. The most capable employees currently in the job and their supervisors comprised the DACUM panel. They completed a list of necessary skills for each job used to develop a curriculum. The last part of the DACUM interpreted the job tasks into curriculum needs, and this curriculum became the basis for all programs. (See Appendix.)

We developed a comprehensive program consisting of core classes at various levels of literacy from the DACUM. Individual peer support, along with group discussions and workshops sessions and individualized instruction became the vehicle for training. We designed all classes to include the concept of team building, and the culture of each work environment.

Core classes were built around levels of cognitive and processing skills for each level of literacy training. The development of reading and math skills, oral and written communication, strategies for processing printed materials and interpreting charts, blueprints, basic statistical information (precursor for Statistical Process Control), and medical terminology were provided for in each level of literacy training.

Instruction emphasized the acquisition of basic skills and English As a Second Language, and developed content knowledge through interactive student-centered activities that focused on actual literacy tasks. A counselor intervened as needed when teachers identified students at risk of dropping out. There were several levels of math and reading courses. Individual courses were adjusted according to actual literacy levels in each class. Actual course content included content requirements from the literacy audit. (See Appendix).

We did not have access to computers at the sites, and having only one computer per site did not prove advantageous for Computer Aided Instruction reinforcement for the students. Classroom and individual reinforcement activities were substituted, and this included individualized instruction and independent study.

Throughout the length of the project, personal awareness workshops were developed in the areas of: work survival skills, goal setting and time management, self esteem and confidence building, assertiveness training, stress management, dealing with peers/supervisors, problem solving and other education opportunities.

Each of the personal development workshops related to literacy and language acquisition as its focal point. Relevant workplace applications were incorporated into the workshops as appropriate.

Small group workshop sessions were designed to lend support when needed for workers at risk of dropping out. Sessions were structured so that workers could

discuss successes or difficulties they were experiencing in classes or at work. Workers were asked to focus on specific literacy tasks or language problems they encountered and bring in examples of exciting or challenging materials. The counselor/teacher provided additional strategies for accessing or expressing ideas in print and made recommendations for more general reading. Students who needed special help or desired greater challenges were referred to college advisement counselors.

Goal 3: Develop program orientation for workers

Objective 3.1: Disseminate information to the workforce

Objective 3.2: Produce a promotional video

Objective 3.3: Use the video in orientation sessions.

As expected, many adults were reluctant to come forward and be identified as someone who needed training in basic skills. Many workers were afraid that their deficiencies might mark and embarrass them and were concerned that information about their lack of literacy might be held against them. Many of the same workers already had negative experiences with schooling and did not have much confidence in their own abilities.

To allow these workers maximum access to the program, we tried to make the program as "user friendly" as possible. We developed an orientation program designed to provide information, dispel fear and promote participation. To reduce the fear factor even further, we encouraged workers to meet individually with the counselor and teachers assigned to their site. (See video tape and Appendix)

At General Motors, St. Francis Medical Center, Princeton Plasma, and Rhein Chemie, management and teachers visited the work site to talk with supervisors and interested workers. They introduced the program, disseminated flyers and posters, and were available to answer questions. They also announced the time for the orientation meeting and the schedule for assessment.

The WPL team produced a six minute video outlining the broader context of the training, the content of the courses and benefits derived from participation. This video portrayed the WPL program as accessible, open to all and enjoyable. Representatives from each sites attended the orientation meetings and explained the organizations' participation in the program and their eagerness for their employees to succeed. At the end of the orientation, workers were given the opportunity to participate in the sign-up and schedule placement assessment. Because of the limited amount of start-up time, this video was ready in month six, and used thereafter.

Goal 4: Conduct orientation sessions for faculty and staff and staff development.

Objective 4.1: Conduct pre-service training to familiarize faculty and staff with final program schedules, needs assessment results and orientation curricula development activity.

Pre-service activities included familiarizing the adjunct staff with the reporting requirements of the program, the logistics of the program and other information relevant to the day-to-day operations of the program.

In addition to initial pre-service activities, there were in-service training sessions each semester to develop teacher strategies for adult learning. An instructor handbook was also developed for this purpose. (See Appendix)

Goal 5: To provide academic counseling sessions for participants so that individual educational goals and plans of actions are developed in order to retain at least sixty percent of students in the program and provide guidance for continued educational and career advancement.

Employees enrolled in the program participated in an in-take interview with the guidance counselor. The interview resulted in placement into one of the levels of instruction as well as development of an IEP (individual education plan) which outlined educational goals. The counselor also determined other support services needed for participants and facilitated the acquisition of those services. In addition, the counselor provided referral information for employees who needed other vocational training. Employee dropout was minimal. Lay-offs, transfers, shift changes, and job terminations often caused drop outs. In the Medical Center, high patient census resulted in lower class attendance. Similarly, at PPPL, required job training for the tritium project kept many from attending classes consistently. However, contrary to our initial estimation, almost 85% of the students continued in the program throughout the grant period.

Goal 6: Implement instruction

Objective 6.1: Conduct five training cycles providing instruction to 600 workers, retain 240 workers through completion of class and move at least 60% of the workers at each site to the next level of instructions.

Numerous courses were offered within each cycle with the duration of each course varying depending on content. Start dates were staggered throughout each cycle. The courses scheduled for each cycle varied according to need. The month proceeding each cycle featured several orientation sessions and publicity. MCCC was extremely pleased with retention within the program and accomplishments of the participants. (See IV Outcomes Achieved by Participants.)

Goal 7: Develop participant skill and workplace literacy.

Objective 7.1 Increase workplace literacy performance as measured by test scores, levels of workplace literacy participation and feedback from supervisors.

(See Section IV)

Goal 8: Institutionalize the program

Goal 8.1: The college will incorporate the introductory classes into the college's curricular offerings for business and industry. The introductory class that integrates reading and math will be refined and made available to any industry in the area needing to provide that kind of course to their employees.

Goal 8.2: The organizations will provide on-going training for their employees through partnership with Mercer County Community College and other educational and community agencies addressing the literacy problem.

The first of a series of courses will be offered in our January, 1993 college program. In addition, we are in contact with the New Jersey Department of Labor to share information from our grant operations with other industries in the state.

Three partners have continued employee training at their expense. After the program ended. Each partner wrote a letter of intent to keep the training program going if funds permit. The program was so successful that MCCC also applied for a new WPL grant to develop competence in new sections of private industry, i.e. service. (See Appendix)

We are pleased to report that St. Francis Medical Center has taken the leadership role in Mercer County to form a consortium of hospitals within the county to provide workplace literacy programs for hospital employees. Based on

the grant model, SFMC and MCCC will offer a similar model for the other hospitals in the area. At present these hospitals are applying for state grant funding for this project. In addition, other hospitals within the state are also looking into the possibility of a consortium for hospital training based on the grant model.

Goal 9: Disseminate results.

Objective 9.1: The college will make conference presentations on the project.

Objective 9:2 The organizations will publicize project efforts among other employers.

(See VI Dissemination)

III. Schedule of Accomplishments

For the most part, the project met all target dates. In future programs, however, it would be beneficial to extend the amount of time devoted to program development. Partners were unwilling to schedule participants without a real understanding of the course content. The development schedule was so intense that to have classes begin according to the projected time schedule, college program developers were pressed and industries had to disrupt their schedules with little prior planning.

The month-by month plan of operation originally proposed and the dates of completion follow:

All milestones were completed on time unless indicated.

Month-by-Month Plan of Operation

Month 1:

- -Convene partners and finalize details of operation
- -Form and convene advisory group
- -Conduct job-specific curriculum and assessment workshop
- -Education and business partners meet to finalize training plans, conduct support services needs assessment
- -Produce Video Tape (completed in month 6)

Month 2

-On-site observation and interviews to develop needs-assessment information, instructional strategies and to finalize assessment tool selection.
-On-site observations to provide technical assistance for curriculum and assessment development
-Administer placement tests for norming purposes with sample workers in targeted job classifications.
-Set worker productivity, retention and advancement objectives
-Develop and design record keeping forms for project monitor

Month 3

-Conduct DACUM training sessions utilizing results of literacy audit.
-Finalize plans for conducting assessment and develop individual educational plans
-Complete curriculum development
-Complete orientations and academic advisement and placement sessions

Month 4

-Begin workplace literacy instruction
-Partners begin project record keeping
-Evaluation team begins bimonthly technical assistance\formative evaluation visits

Month 5-15

-Continue instruction and progress monitoring
-Continue technical assistance
-Develop learner job performance evaluation methods

Month 6 , 12 and 18

-Advisory council meetings to review project progress and plan follow-up activities

Month 15

-Conduct post tests and assessments
-Gather learner productivity/job performance data

Month 16

-Continue instruction
-Analyze learner out-comes data, job specific program assessments, individual education accomplishments, changes in productivity, etc.

Month 17
-Continue instruction
-Prepare learner progress and project evaluation report
-Finalize job specific workplace literacy modules

Month 18
-Continue instruction
-Submit project final report to Department of Education to included:
(submitted within 90 day period)
-Job specific workplace literacy curriculum modules
-Final evaluation report

IV. Participant Outcomes

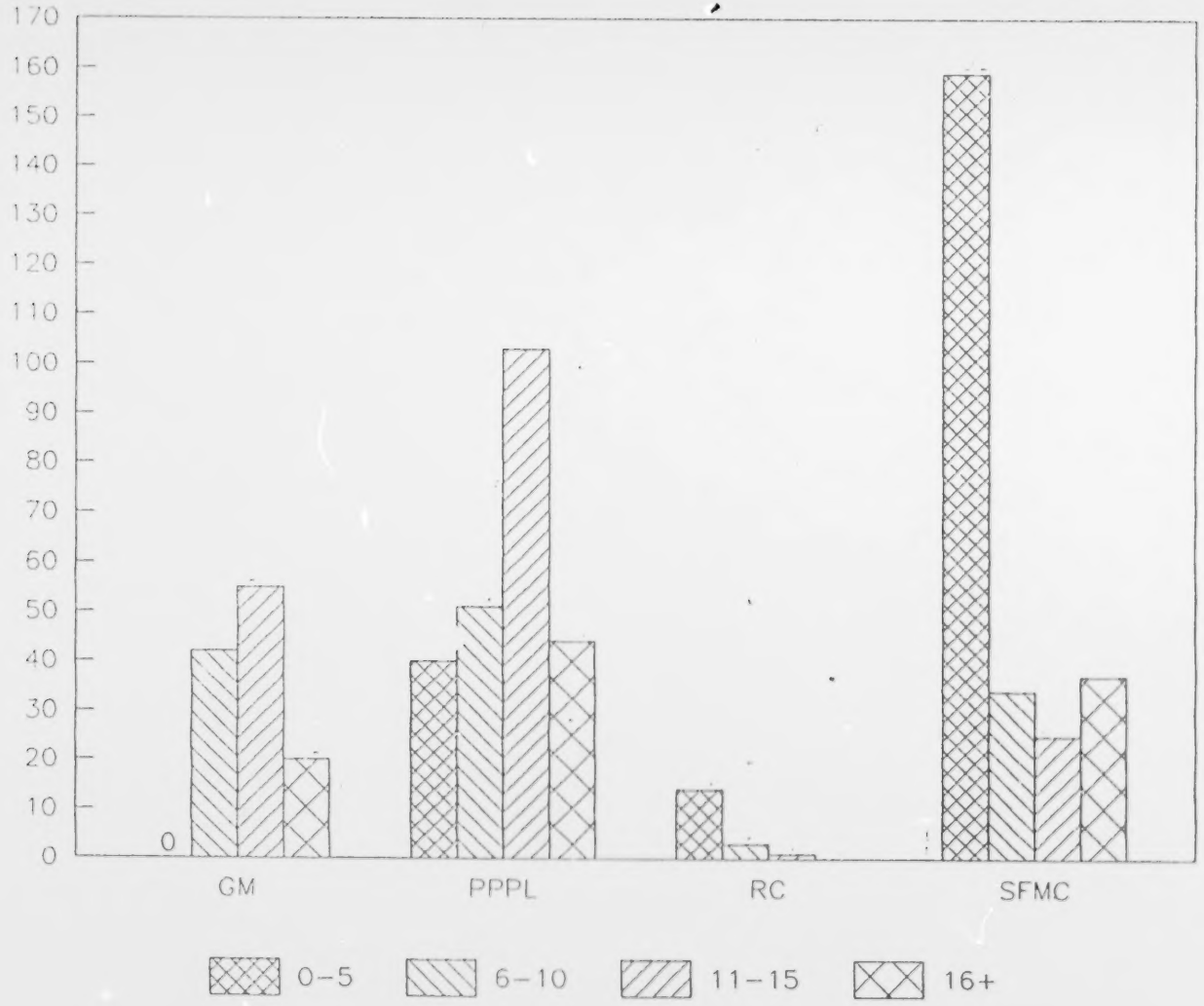
A. Description of Participants

The program was successful in targeting adults with inadequate skills required for new employment, continuous employment, career advancement, or whom employers targeted for increased productivity. The Mercer project underscored the Department of Education's belief that even workers with the traditional trappings of educational attainment (degrees) may have insufficient workplace skills to be productive, contributing employees. Therefore, our target groups were expanded from the traditional entry level positions to those positions with the most need for basic skill training to impact the employee and the company. The level of education ranged from below 8th grade to those with college and vocational degrees. MCCC observed that the ability to write clearly, concisely and accurately often transcends many levels of education, and if the writer cannot write, then the reader cannot receive the message. Front line supervisors, technical and clerical staff needed to learn effective written and oral communication as much as employees who did not have as much schooling. Results of this training were obviously much faster among higher level employees because these staff positions frequently required writing as part of their job descriptions. People in lower level positions did not need to communicate in writing on the job as frequently, but needed to write for other real life situations.

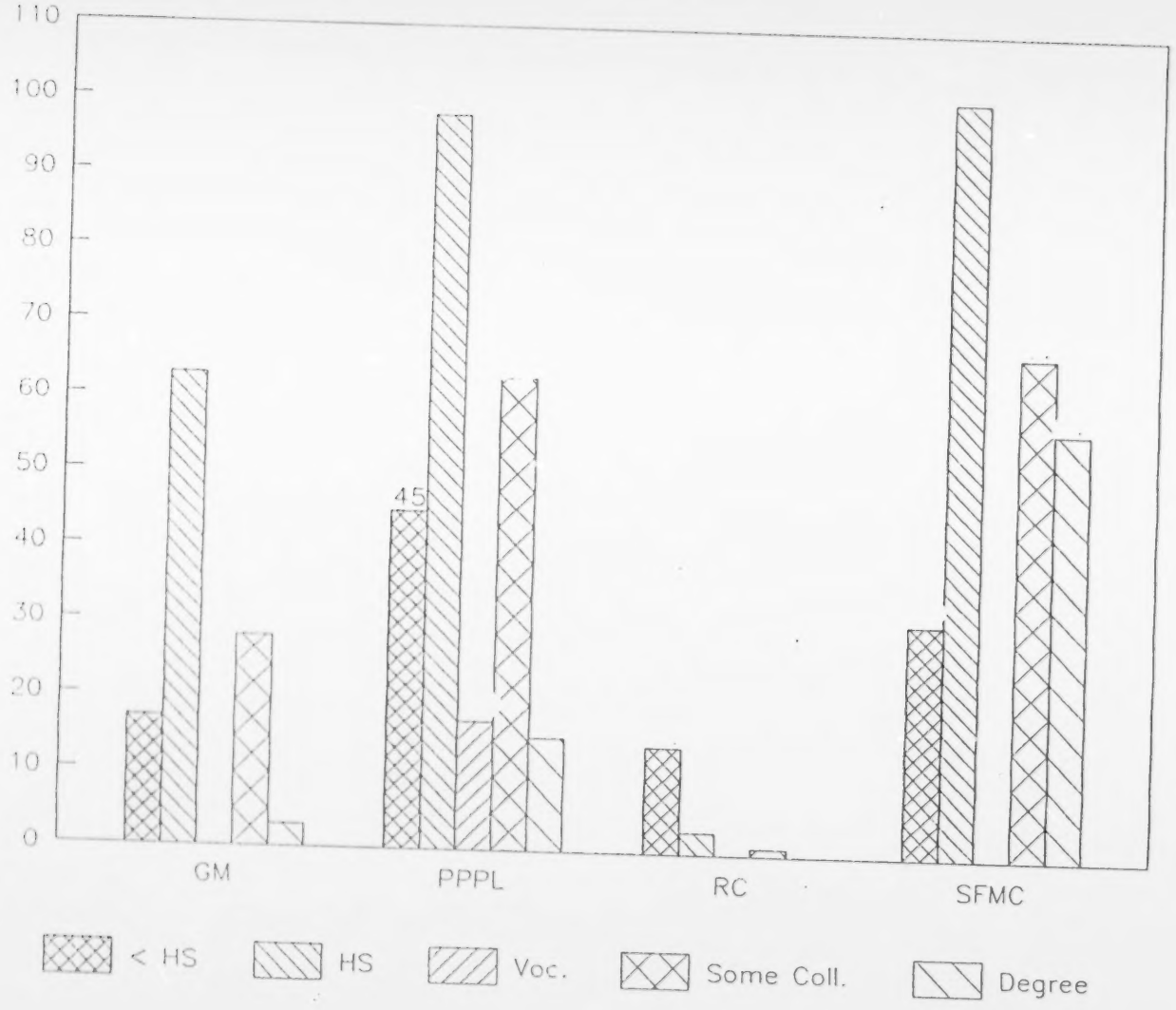
Summary of Employee Participation

By Industry	GM	PPPL	SFMC	RC
Average Age	37	40	38	29
Males	47	139	53	18
Females	70	96	202	0
# Yrs. with Company				
1-5	0	40	159	14
6-10	42	49	34	3
11-15	55	104	25	1
16+	20	42	37	0
Languages spoken at home				
English	95	223	231	9
Spanish	7	8		5
Japanese	4	4		
Polish	7			
Hungarian	1			
Brazilian	1			
Italian	1		1	
Ukrainian	1			
French			23	
Education				
Less than HS	17	46	35	14
HS	63	98	101	3
Some College	26	64	74	1
Degree or Vocational	3	27	45	0
Race				
Caucasian	88	181	159	4
Afro-American	23	39	63	4
Hispanic	5	8	29	10
Asian	1	7	4	
Native American				
Other				
Head of Household	60	125	65	8

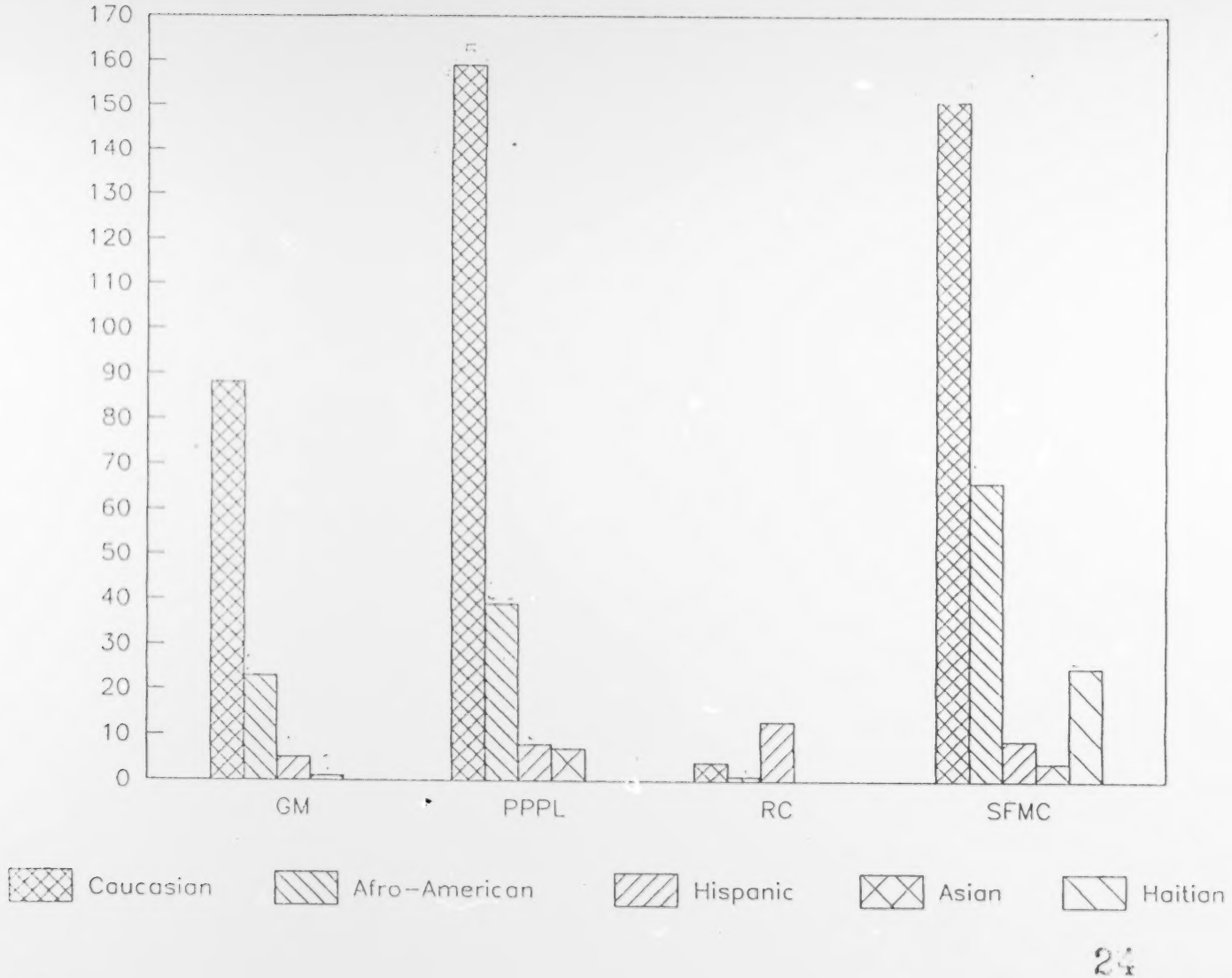
Years With Employer



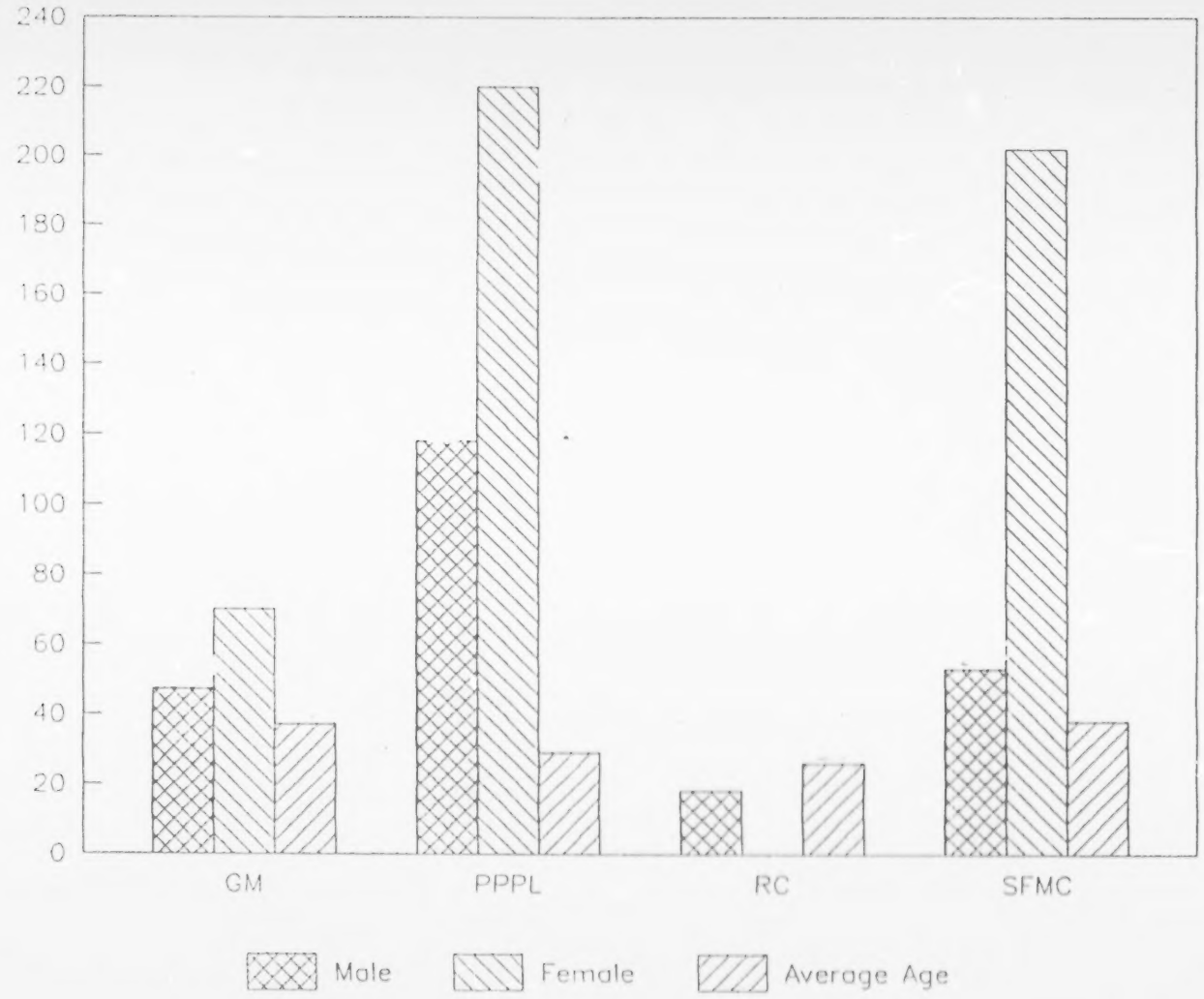
Education Distribution



Race Distribution



Gender / Age Distribution



B. Outcomes Achieved by Participant

Pre/Post Test - Academic Competencies

The average increase of scores in the pre/post tests were:

	Pretest	Post Test	Average Gain
Reading	9.7	11.1	21%
Math	8.2	11.7	46%
Science	55%	81%	26%

Writing samples were competency based. By the end of the courses, most workers were able to organize a document, appropriately define the purpose for writing, and communicate their ideas in ways that others could understand. To some extent, all workers were able to do some writing. However, we found that generally there were still some grammatical and spelling difficulties that needed to be addressed. For the most part, workers took the writing program seriously, and attempted to communicate as efficiently as possible. The end-result often depended upon where the worker began. Those with higher levels of literacy were able to apply the rules for writing more efficiently than those who still experienced greater reading needs.

Affective Domain

Both students and supervisors noted that employee self-confidence increased dramatically as the training continued. Through workshops and classroom activities, students transcended from the image of a child never doing well in a classroom, to that of a student able to comprehend material and use it readily. The ability to achieve in the classroom reflected in the work environment, and often resulted in employees volunteering for assignments such as writing an article for the newsletter, or giving a briefing to a visitor.

As a result of the improved self-confidence, the work aptitude also improved. Employees brought their new knowledge to the floor including the ability to problem solve, attack a situation more critically, use the basic reading, writing and math skills on the job, all of which reflected a more productive and effective employee.

Many employees stated that they viewed the company more positively. They were able to see their role in the overall scheme of the operation more clearly, and therefore were willing to offer suggestions to improve a task, look at their

task in alternate ways, and see the company as an institution that gave them an opportunity for learning.

Human resource personnel indicated that since the WPL program began many employees requested information about tuition reimbursement for college programs and other continuing education. All four institutions have this benefit, and value employees taking part in the program.

Another positive benefit of the program was the improved ability to work with co-workers. Training provided ways to deal with difficult people, handle stressful situations, problem solving and communicate and listen effectively. All of these workshops affected the employees' outlook towards fellow employees. In addition, employees who did not have strong English language facility are now able to take a more active role at the worksite. Not only can they interpret work-related directions and rules more easily, but they are able to understand the work jargon and slang that permeates each worksite. This enabled them to work more effectively and easily with co-workers.

V. Partners' Assessment Survey

All partners indicated that the level of employee satisfaction and self-confidence rose for those employees participating in the Skills for Tomorrow program. An exit survey of supervisors and a separate one for employees indicate that the partners valued the success of the program.

The following are excerpts from an exit survey with management at the conclusion of the program. Comments reflected the affective benefits to the employees and the company, as well and the more subtle changes seen at the worksite.

1. What are the positive aspects of the training program?

- All ages were included
- People got a good feeling of self-esteem
- Can talk to employees and they can communicate better
- Felt good to have it for themselves
- Program well organized and developed
- Supervisors should be able to ask their employees to do more writing now
- Worthwhile
- Completed more education and want to go further
- Go beyond current level
- Operation and expansion to new technology, and need people able to do it
- Statistical data important
- Read instructions better
- Have shown improvement
- Can handle what is required better
- Handle what is required in future
- Positive for the employees who are foreign
- People have been expressing appreciation to the company for the time to do it
- Increases employees' interest in other learning programs
- More acceptable to joining other learning programs now - no stigma
- Good deal of interest in the tuition reimbursement program
- Improved work skills
- Employee/Supervisor participation
- Greatly improved math skills
- Provides opportunity to improve for those interested in doing so.
- Improved work skills
- Employee/Supervisor participation
- Greatly improved math skills
- Provides opportunity to improve for those interested in doing so.

3. List any benefits or improvements that you feel you have achieved through this program.

- Camaraderie
- Increased self-esteem
- Better attitude
- My reports, letters are better
- Job instructions
- Boosted my self-confidence
- Learning to communicate with others
- Better grammar and spelling
- Ability to use % when shopping

- Can cope with pressures
- Job instructions
- SP training

(See Appendix for complete survey)

Longitudinal Study:

While statistically there is a great improvement in scores between pre and post tests, there needs to be longitudinal study to assess actual productivity over a longer period of time. Because relatively few employees from any one work group participated in the training (625 total), there needs to be continued training throughout the organization to produce any lasting benefits for the employees or the company.

All companies were concerned about disruption in their workday. With classes lasting a minimum of four hours per week, companies needed to be able to fill the work slots during training time. This was easier in larger companies than in smaller ones, and was particularly difficult in the hospital where the staff was so lean that each person often did several jobs within the period of a day. Two companies tried providing some training on the employee's own time (lunch) or after work. It appears that many employees have other obligations such as other jobs or childcare which cannot be ignored, and are unable to make time for training if it is not during the normal workday. Therefore, the MCCC project recommends that training be done primarily on company time.

VI. Dissemination

MCCC is part of NOTE, (Network of Training and Occupational Education), a network of 19 community colleges that disseminates training information to business throughout the state. As part of this group, information about MCCC's workplace education program is being transmitted throughout the state frequently. The NOTE coordinator is located at MCCC and is able to provide samples and information about our program to other colleges and businesses.

Presentations were given at the New Jersey Association for Developmental Education meeting held at Kean College in October, 1992, for state representatives of developmental learning, and the New Jersey Adult Life Long Learning Statewide Conference in May, 1992. In addition, MCCC sponsored several business breakfasts which featured the WPL project and offered suggestions for other businesses. Finally a joint breakfast was held with old and new partners, and a state representative from the Department of Labor to discuss the benefits of WPL to business and the county.

To disseminate information about the project and encourage other employers to develop partnerships for workplace literacy, GM, SFMC, PPPL and RC presented the project to specific industry groups and reported on project results to other business groups in the Trenton area.

MCCC has sent copies of this final progress report and curriculum to the ERIC Clearinghouse for further dissemination.

VII. **Evaluation**

Performance Evaluation Measures Monitoring

The project staff developed measurable performance evaluation criteria for each of the program activities using the standardized ABLE test and the New Jersey Basic Skills Placement Test. After the initial use, the NJBSPT was discontinued in favor of the ABLE test, which is far more user friendly.

In addition, questionnaires were constructed and interviews were used to collect data and reactions to activities of the program. Student information was critical to evaluate the ease of access, the relevance of materials and information, the perceived accuracy of information, the perceived values of activities, and suggestions for additional services and information. Almost all students felt that they had benefited from the program both at work and in their personal lives.

Faculty and staff were surveyed each session for reactions to activities, suggestions for revisions and additions, ease of using materials/test data with students, and quality and usefulness of faculty development activities. As a result, modifications were frequently made.

This extensive use of survey data allowed the project staff to identify those components that had the greatest impact and those activities that were perceived to be less effective.

After each class, and then by semester, students were asked to evaluate how the program affected their job, homelife, and goals they set for the program. At that point modifications were made to ensure a productive program.

External Evaluation

The following report is an evaluation of the program by Philip Ringle who was responsible for external evaluation of the program.

PHILIP M. RINGLE, PH.D.
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ELLICOTT CITY, MARYLAND, 21042

PHONE (410) 465-6734

Ms. Elaine S. Weinberg
Project Director
Workplace Skills Project
Mercer County Community College
Post Office Box B
Trenton, New Jersey 08690

September 20, 1992

Re: Workplace Literacy Grant - Final Evaluation

Dear Elaine;

Congratulations on the completion of a very successful workplace literacy project. Your hard work, attention to detail and ability to work with each of the constituencies involved in the project contributed to the success. Because you involved me in the final evaluation process, and I have had an opportunity to review the survey results and summative evaluation materials, I am going to restrict my comments to the grant administration and management aspects of the project. I do, however, want to compliment you on the positive results of the program. The student outcomes, employer satisfaction and materials developed are exemplary. The enthusiasm you demonstrated for the project throughout the grant period and the amount of effort put into training the staff and documenting the development of curricula and materials will make it easy for other jurisdictions to replicate the project.

The evaluation provided at the conclusion of the project period is designed to document your final assessment, to comment on the administration of the grant, and to make recommendations for future programs.

Final Assessment

As I mentioned earlier, I was pleased to review the final assessment of the project. The results reported for the project are consistent with the evaluation materials gathered throughout the grant period and with the summative evaluation instruments used at the conclusion of the project. One of the strengths of the project was the willingness of the project director and staff to make "mid-course" adjustments and the constant attention to

providing the highest caliber of instruction to project participants.

Project Administration

A review of project documentation suggests that the project was administered in a manner consistent with the revised project proposal. Each of the three partners has provided the promised space, equipment and access to the workforce. As is true in many federally funded projects which bring together a public institution with private sector partners, a period of negotiation wherein each partner develops an understanding and appreciation for the culture and operating procedures of the member organizations occurs throughout the grant period. The project director is to be commended on the creative ways in which she has been able to meld the various cultures and advance the objectives of the project. In many instances, the partners exceeded the requirements for their participation.

Each of the major milestones in the project was completed or deferred with just cause. Orientation and dissemination activities were effectively implemented. Public relations materials were appropriate and geared to the specific needs of the business partner. Qualified teachers were employed. Curricula was developed through the use of a DACUM process and the completed curricula has been documented. Staff have been adequately prepared for the project and supported throughout the project period.

Administrative systems and procedures were developed in a manner consistent with the established operating procedures for Mercer County Community College. Employment practices were also consistent with the colleges approved procedures. Ms. Weinberg worked closely with her supervisor to insure that project administration met the requirements of the federally funded project and the practices and procedures of the college.

Job shadowing, the literacy audit, presentations to employees, selection and testing, and placement were each conducted with a level of professionalism that demonstrated respect for the individual needs of each potential project participant and attention to the requirements of the project. Where negotiation with the employer required minor adjustments to the plan as presented in the proposal for funding, the adjustment was consistent with the intent of the project and in no way altered the initial design or objectives of the project. Each phase of the program has been conducted in a manner that has led to the development of a model that the college will be able to replicate with similar employers in their service area.

An exceptionally strong component of the program is the work that has been completed in producing the highest quality

curriculum for each program participant. The DACUM process was useful in engaging workers at each site, but the real strength of the curriculum development activity is the time and attention the director and faculty have spent in developing, reviewing, and modifying curriculum. Similarly, the workshops and core courses received the same attention and thought as the specific workplace skills courses.

Ongoing evaluation systems were instituted and the evaluation design presented in the original proposal has been followed. The greatest strength of the evaluation system has been the director's willingness to openly review formative evaluation and to modify program elements as required. All necessary record keeping and management controls were evident throughout the project period. Post-test results, self reports, and other formal and informal evaluative techniques indicate that workers test higher on basic skills and improve communication skills as a result of participation in the program. Program goals for enrollment were on target and the project is to be commended for adding a new partner as the project progressed. There were no modifications to program design or implementation that changed the intent of the project.

Recommendations

1. In the opinion of this evaluator, the grant would have been strengthened had the college been granted a three year award. The start-up, negotiation, recruitment, and curriculum development time required for each partner makes it extremely difficult to complete a project without a minimum of three years funding. I do not feel that this project suffered from the reduced time largely because of the extra efforts of college personnel. I do feel that the department of education should consider making all new workplace initiatives longer in duration.

2. I would suggest that full-time staff be employed to provide the instructional component instead of adjunct faculty. There are some cost savings, of course, in the use of adjuncts, but it is necessary in programs like workplace literacy to insure continuity of staff. Adjuncts are too likely to leave during the project. A permanent staff allows for more consistency in curriculum development and the ability to develop stronger relationships with employees of the partner corporations.

3. Consistent with the increased time frame of the project, would be the recommendation that project staff take more time at the outset and more time during the project for development activities. Again, this was not a serious problem for the Mercer project because of the dedication of staff. Curriculum and course development is a time-consuming and difficult task that should not be forced into a restrictive time frame.

4. One area of weakness in the project was the use of computers and computer assisted instruction. Budget restrictions made this impractical. However, because of the power of the computer as a tool to reinforce learning and because of the value of Computer Assisted Instruction in drill and practice and self-paced instruction, more integration of technology in the learning environment is recommended.

5. I would encourage the college to seek additional funding to develop models of workplace literacy for other types of industries in the service area of the college.

Overall Assessment

The Department of Education funded workplace literacy grant project at Mercer County Community College, under the direction of Ms. Elaine Weinberg, was an exemplary model of the powerful and important contribution that colleges working with the private sector can achieve. This project was one of the best I have had the good fortune to observe and promises to be replicable in a wide variety of locations and with a wide variety of employers. The partners and the college recognize the important contributions of the program and additional workplace literacy activities are already planned. The college has successfully adopted a variety of courses into its continuing education offerings and the employers are anxious to extend the benefits of the program to additional employees.

Like any successful program, what looks easy is often the result of hours and hours of hard work and dedication of one "champion". In this case, that champion has been the project director. Ms. Weinberg has demonstrated the skills, competencies and dedication required to make the workplace literacy activities unique and important for each program participant. She should be commended and the college and the business partners should be proud of what they have accomplished.

Sincerely,

Philip M. Ringle, Ph.D.

Midcourse External Evaluation

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Ms. Elaine S. Weinberg
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Mercer County Community College
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October 4, 1991

Re: Workplace Literacy Grant - Mid Project Evaluation

Dear Elaine;

I very much appreciated the preparation you made for the on-site visit and the hospitality you extended during the visit. The enthusiasm you demonstrated for the project was catching and the cause for that enthusiasm was evident.

The evaluation provided at the midpoint of the project period is designed to document project progress and to comment on the developmental tasks of project start-up and administration, project implementation, and evaluation.

Project Start-up and Administration

A review of project documentation suggests that the project was initiated as outlined in the revised proposal. Each of the three partners has provided the promised space, equipment and access to the workforce. As is true in many federally funded projects which bring together a public institution with private sector partners, a period of negotiation wherein each partner develops an understanding and appreciation for the culture and operating procedures of the member organizations occurred at the outset of the grant. The project director is to be commended on the creative ways in which she has been able to meld the various cultures and advance the objectives of the project.

Orientation and dissemination activities were found to be most effectively implemented through one-to-one communication at each site. Public relations materials were appropriate and geared to the specific needs of the business partner. Finding qualified teachers for part-time positions is always difficult. It is apparent that the project director has worked hard at the recruitment, training, and support of her staff. Teacher workshops were provided for staff one week prior to beginning

the session and topics covered were appropriate. Ongoing support for the instructional staff was evident.

Administrative systems and procedures have been put into place. The project director was not hired until April 15 and to her credit, the project did not experience the delays one would expect from the late start. This is in large measure due to the organizational skills of the director, her experience in schools and business and industry and the attention she has paid to each aspect of project implementation. In addition, Ms. Weinberg has worked closely with her supervisor to insure that project administration meets the requirements of the federally funded project and the practices and procedures of the college.

Job shadowing and the literacy audit, initial presentations to employees, selection and testing, and placement were each conducted with a level of professionalism that demonstrated respect for the individual needs of each potential project participant and attention to the requirements of the project. Where negotiation with the employer required minor adjustments to the plan as presented in the proposal for funding, the adjustment was consistent with the intent of the project and in no way altered the initial design or objectives of the project.

Project Implementation

Project implementation was conducted well and each phase of the program has been initiated in a manner that should lead to long term success and the development of a model that the college will be able to replicate with other businesses in their service areas.

Assessment - literacy audits, initial participant assessment and integration of assessment results with prior assessment at General Motors performed in accordance with program requirements. The project director has decided to use the ABLE instrument to replace the NJBST for assessment. I concur with the rationale for that change and believe the evaluation process will be stronger as a result of this substitution.

Individual Educational Plan - the IEP has turned out not to be a terribly effective program element. The intent of the IEP (individual planning of educational outcomes for project participants) has in large part been accomplished through participation in personal awareness workshops, close personal contact with instructional and administrative staff, and taking advantage of support services. This evaluator does not see this as a serious weakness of the program.

Individual Instruction and Computer Assisted Instruction - Though no federal funds were provided for this activity, the project director has worked out cooperative

arrangements with the Rutger's funded lab at General Motors to arrange for CAI experiences for students. She is also currently exploring Macintosh software for individualized instruction. While this would be a positive addition for drill and practice, I do not see computer assisted approaches or individualized instruction replacing the dynamic instruction I witnessed in the classroom.

Personal Awareness Workshops - This aspect was not viewed nor was evaluative information provided. The director reports considerable success in this area and was particularly pleased with the problem solving workshops.

Curriculum Development - An exceptionally strong component of the program is the work that has been completed and is ongoing in producing the highest quality curriculum for each program participant. The DACUM process was useful in engaging workers at each site, but the real strength of the curriculum development activity is the time and attention the director and faculty have spent in developing, reviewing, and modifying curriculum. Additional DACUM sessions are planned at each site.

Core Courses - The highlight of the site visit was a visit to a math class at Princeton Plasma Physics Laboratory and a language arts class at General Motors. The instructional techniques employed were appropriate to the learner and the learners were actively engaged in the classes. Both instructors demonstrated the patience, humor, and genuine caring that coupled with their knowledge of the discipline make for an exciting environment for learning. Students in each class participated, were willing to share experiences, and were anxious to succeed and to assist their classmates in their development.

Video Tape - The original intent of the video tape production as a recruitment tool has not been realized because of the more individual methods of recruitment which were found to be necessary. The video tape is being produced and will be useful as a promotion vehicle for new businesses and as a dissemination tool to explain the program to other institutions interested in instituting a literacy program.

Advisory Councils - An advisory council has been established at each of the sites. The councils are comprised of representatives from top management, the human resource offices, employees, and college personnel. The advisory councils have met on the college campus and at their work site.

Project Evaluation

The ongoing evaluation systems have been instituted. The Mercer Community College program promises to be an exemplary project under the Workplace Literacy Act. The project staff is committed to program excellence, the college has established the necessary record keeping and management controls, the relationship with each of the business partners is developing, and most important, the teaching learning process and what is happening in the classrooms is outstanding. I had an opportunity to review evaluations and found the participant comments all to be complimentary and positive. In addition, post-test results, self reports, and other formal and informal evaluative techniques indicate that workers test higher on basic skills and improve communication skills as a result of participation in the program. Program goals for enrollment are on target. All project objectives have been advanced at the time of this visit and there have been no modifications to program design or implementation that would change the intent of the project.

In summary, the Workplace Literacy Grant at Mercer County Community College is proceeding on schedule, meeting program objectives and milestones, and promises to be an exemplary model. The project director and staff are justifiably proud of the project and the program participants seem engaged in the project and are demonstrating significant gains in work related literacy skills. The partnerships developed are strong and should lead to an ongoing relationship. I would recommend no significant change in program design, administration or implementation.

Sincerely,

Philip M. Ringle, Ph.D.

VIII. Key Personnel

Elizabeth Payer was initially slated as Project Director when MCCC applied for the grant. However, before the grant was awarded, Ms. Payer took another position within the college, and was unavailable for the assignment. Elaine S. Weinberg was hired for the position in her place. Ms. Weinberg has a strong background in Adult Education, reading and administration and was able to utilize this expertise in the program.

In July of 1992, Walter Meyer resigned his position as Director of the Department of Corporate and Continuing Education. His role in the project was assumed by the Dean of the Department, Rose Nini.

IX. Summary

The eighteen month workplace education program was a critical program for the economic growth of Mercer County. The four companies involved in the training received both academic training and an uplift in employee morale. We strongly believe that the grant had trickle down value as well. In many families the skills that the employees learned were brought home to their children and community.

In a union environment such as General Motors, seniority is the largest indicator for job promotion. However, there were several students who were eligible for bidding on a higher position and were promoted.

In PPPL, where there is a shortfall in new funding, and fear of cutbacks, the possibility for promotions at this time is slim. However, with the newly developed skills the employees will be more valuable in their existing jobs.

At SFMC the dietary and environmental services have used the progress of their employees in this program as an indicator for promotion within their area. Several people were promoted to levels of more responsibility, and one person was promoted into a different area.

To date, no higher level office personnel or front line supervisor has been promoted, but many are using the access to the CEU credits that the college offers as a means to keep their learning current.

At RC, one man received his GED, others taking ESL are now more vital parts of the organization. Promotion reflects leadership ability. The company has a low turnover, so there are few new slots to fill and little opportunity at this time for promotion.

Despite the ability to move vertically in the companies, all participants and their managers indicate that job skills and reasoning ability are more refined, and employees offer new solutions to old problems.

Several employees decided to make a career change; one is studying to become a minister. Several employees were promoted, others saw the possibility of promotion if certain skill levels were met. Five men can now read on a GED level who were unable to read at all before. Almost fifty employees can now speak English with some degree of comfort, making life on the job and in the community easier. One man just received his GED. Upon notification of his achievement, he announced that within five years he will leave the production line and be in management. The human interest stories are endless. A Vietnamese nurse can now stop sweeping floors and again work in the emergency room. A mother and daughter are planning to go to college together.

The impact of the project on resolving problems the project addressed were enormous. First, it provided each company the ability to assess their employee strengths and weaknesses and how that related to the growth of their companies. It gave employees the opportunity to refresh and upgrade their skills for their job now and in the future, or if need be, at another company. This aspect of improving the workforce is a positive step towards the economic recovery in the Mercer County area. While this project is still in it's infancy after 15 months of instruction, the workers now know that there are resources to help them academically both within the company and in the community if they choose to take advantage of them.

The grant provided the impetus to change many lives. It gave the companies involved an economic boost that can only be measured over the next decade. The program is an exceptional opportunity for everyone: employees, companies, region. The Department of Education is to be commended for providing this opportunity.

Survey

Sample Evaluation Surveys
St. Francis Medical Center
Employer Evaluation

Part A: Please circle the appropriate number:

	Strongly Agree	Agree	DK
1. Do employees have a better understanding of terms used in the workplace?	70	30	
2. Do they have a more positive attitude towards themselves/others/work?	60	40	
3. Have they had fewer errors or accidents?	40	50	10
4. Did communications improve?	30	50	20
5. Have they improved in preparing forms and other paperwork?	30	60	10
6. Are they able to follow directions more easily?	30	60	
7. Do they use English on the job more often?	90	10 (for ESL)	

Part B. Please answer the following questions:
(SAMPLE RESPONSES)

1. What are the positive aspects of the training program?
   - Employees felt good about the training, i.e. the hospital cared about them
   - The employees who needed to learn English had an opportunity to do it
   - It allowed employees to refresh their skills
   - It made training available to all those who wanted it
   - It helped with their writing and proof reading
   - It was worthwhile
   - I wish more people took advantage of it
   - They have shown improvement
   - Can handle what is required better

St. Francis Medical Center
Employer Evaluation

2. What are the negative aspects of the training program?

   - We are so busy that it was hard to take time for the classes
   - We're understaffed-it's hard to schedule
   - It's hard to get some people to go (for classes)
   - Employees need computer training

3. List any benefits or improvements that you feel you have achieved through this program.

   - Increased confidence
   - Better attitude
   - Writes better reports
   - More accurate
   - More accurate with charts
   - Can communicate better
   - Better grammar and spelling
   - Can handle stress better
   - Can speak English with others better - talks to us all the time now

4. What recommendations would you make about the program?
   - Make the program longer
   - None
   - Do more courses

5. How would you encourage more people to attend?
   - Talk to them
   - More advertising
   - Longer time to publicize it

Sample Evaluation Surveys

St. Francis Medical Center
Employee Evaluation

Part A: Please circle the appropriate number:

	Strongly Agree	Agree
1. Do you have a better understanding of terms used in the workplace?	35%	65%
2. Do you have a more positive attitude towards yourself/others/work?	60%	40%
3. Have you had fewer errors or accident?	40%	60%
4. Did your communications improve?	65%	35%
5. Have you improved in preparing forms and other paperwork?	40%	60%
6. Are you able to follow directions more easily?	30%	70%
7. Do you use English on the job more often?	25%	75%

Part B. Please answer the following questions:
(SAMPLE RESPONSES)

1. What are the positive aspects of the training program?
   - Helpful instructors - Understanding instructors
   - Free of charge - At work
   - Useful learning could be used right away
   - Medical terms really helped me
   - I spoke better English
   - I can read better
   - Better understanding of paperwork
   - Made my job easier and more organized
   - Improved writing skills, meeting new people, on-site
   - The program gave me different perspectives on how to handle problems and communicate.
   - The program was very helpful in deal with employees on the job and outside

- Being able to have classes during the workday
- My job is easier now

2. What are the negative aspects of the training program?
   - Didn't find any
   - None
   - Should have computer training

3. List any benefits or improvements that you feel you have achieved through this program.

   - Increased self-esteem
   - I have a better attitude
   - I write better reports, letters
   - Boosted my self-confidence
   - Learning to communicate with others
   - Can cope with pressures
   - Better communication skills

4. What recommendations would you make about the program?
   - Do more trainign for a longer times
   - Add computer training
   - It was great the way it was

5. How would you encourage more people to attend?
   - Publicize it well in advance
   - Have the supervisors publicize it at meetings and on the floor

Sample Evaluation Surveys
General Motors
Employer Evaluation

Part A: Please circle the appropriate number:

	Strongly Agree	Agree	DK
1. Do employees have a better understanding of terms used in the workplace?	60	40	
2. Do they have a more positive attitude towards themselves/others/work?	80	20	
3. Have they had fewer errors or accidents?	50	40	10
4. Did communications improve?	60	20	20
5. Have they improved in preparing forms and other paperwork?	40	20	40
6. Are they able to follow directions more easily?	35	65	
7. Do they use English on the job more often?	29	71	

Part B. Please answer the following questions:
(SAMPLE RESPONSES)

1. What are the positive aspects of the training program?
   - All ages included
   - People got a good feeling of self-esteem
   - Can talk to employees and they can communicate better
   - Felt good to have it for themselves
   - Program well organized and developed
   - Supervisors should be able to ask their employees to do more writing now
   - Worthwhile
   - Completed more education and want to go further
   - Go beyond current level
   - Operation and expansion to new technology; need people able to do it

General Motors Employer Evaluation

1. Positive (continued)

- Statistical data important
- Read instructions better
- Have shown improvement
- Can handle what is required better
- Handle what is required in future
- Positive for the employees who are foreign
- People have been expressing appreciation to the company for the time to do it
- Increases employees' interest in other learning programs
- More acceptable to joining other learning programs now - no stigma
- Good deal of interest in the tuition reimbursement program

2. What are the negative aspects of the training program?
   - There were many more people who needed it who didn't take it
   - Supervisors didn't push their people
   - Replacing them with more job banks people
   - We need computer training

3. List any benefits or improvements that you feel you have achieved through this program.

- Camaraderie
- Increased self-esteem
- Better attitude
- My reports, letters are better
- Job instructions
- Boosted my self-confidence
- Learning to communicate with others
- Better grammar and spelling
- Ability to use % when shopping
- Can cope with pressures
- Job instructions
- SP training

4. What recommendations would you make about the program?
   - Longer
   - Get more people into it
   - It was great the way it was
   - Add computer training

General Motors
Employee Evaluation

Part A: Please circle the appropriate number:

	Strongly Agree %	Agree %	Disagree %
1. Do you have a better understanding of terms used in the workplace?	40	60	
2. Do you have a more positive attitude towards yourself/others/work?	60	40	
3. Have you had fewer errors or accident?	40	60	
4. Did your communications improve?	40	60	
5. Have you improved in preparing forms and other paperwork?	20	40	40
6. Are you able to follow directions more easily?	40	60	
7. Do you use English on the job more often?	100	0	(for ESL)

Part B. Please answer the following questions:
(SAMPLE RESPONSES)

1. What are the positive aspects of the training program?
   - Helpful and understanding instructors
   - Appropriate programs and information and material
   - Positive for the employees who are foreign
   - It gives the chance to use their thinking skills a chance to practice those skills rather than using their hands 90% of the time.
   - The program gives an individual a refresher course in matters that became dull or forgotten over the years. Help one decide if they are willing to continue their education. Teaches one how to deal with stress in the workplace or in our everyday lives.
   - Camaraderie among my co-workers in my class. The class boosted my confidence. I am currently attending BCCC. I am taking classes for my own self-interests.

2. What are the negative aspects of the training program?
   - I don't have any negative comments
   - I don't have any negative views
   - Didn't find any
   - There was a lot of emphasis on English and writing skills which are important but too much time was spent on them.
   - Should have had computer instruction

3. List any benefits or improvements that you feel you have achieved through this program.

   - Great class
   - Great refresher
   - It was fun and confidence building
   - The ability to use percentages when shopping
   - Coping with management and other pressures through stress workshops
   - Learning to communicate with others
   - I developed better grammar
   - Insight on things around through science
   - My reports, letters and notes have more substance
   - Learned new words and meaning, able to apply them freely in the right places
   - Job instructions
   - SP training
   - Increased self-esteem, better attitude towards myself and others

4. What recommendations would you make about the program?
   - Get more into work related science. Our work force deals with computers and high tech equipment, hydraulics and maybe touch on efficient thinking processes
   - Give more time and days for stress and communication workshops
   - Continue to give everyone an opportunity

5. How would you encourage more people to attend?
   - Word of mouth is working
   - Just tell them about the program and how I benefited from it
   - I did. Everyone I talk to I highly recommend the program
   - Employees wishing to further educate themselves but don't possess the courage or confidence to do so. Persons seeking GED should consider the program. Perhaps employees need a refresher course.

Princeton Plasma Physics Laboratory
Employee Evaluation

Part A: Please circle the appropriate number:

	Strongly Agree %	Agree %
1. Do you have a better understanding of terms used in the workplace?	30	70
2. Do you have a more positive attitude towards yourself/others/work?	80	20
3. Have you had fewer errors or accident?	60	40
4. Did your communications improve?	70	30
5. Have you improved in preparing forms and other paperwork?	40	60
6. Are you able to follow directions more easily?	20	80
7. Do you use English on the job more often?	NA	

Part B. Please answer the following questions:
(SAMPLE RESPONSES)

1. What are the positive aspects of the training program?
   - Education on the job, training of the job
   - Getting to know other people have problems.- could be small or big
   - Self-confidence reinforcement
   - Better employee improved skills
   - Well prepared and understanding instructor
   - People are given the opportunity to improve their minds in and out of the work place without having to worry where the money will come from and they do not have to take additional time away from their families.
   - With a training program the classes are all adults. People don't feel uncomfortable because their peers are there to learn not there because they have to be or were pushed into being in class.

Princeton Plasma Physics Laboratory
Employee Evaluation

2. What are the negative aspects of the training program?
   - The time allotted some classes was not enough. The reading, writing classes for the most part were longer. The workshops should be longer.
   - Workbooks in some classes would be good to reinforce class.
   - Computer training

3. List any benefits or improvements that you feel you have achieved through this program.
   - Stress class
   - Writing class
   - Phone communication class
   - Communication
   - Listening
   - How to speak to other people
   - Instructor
   - Improved skills
   - Oral communication
   - Desire to take more classes
   - I realize that I am much smarter than I thought I was
   - Better self-image
   - Helped me to deal more effectively with people
   - Increased math knowledge

4. What recommendations would you make about the program?
   - Lengthen program
   - Do not run too different classes at the same time
   - More classes in the fall and spring
   - More on the job training from the boss down to the cleaning man.

5. How would you encourage more people to attend?
   - By talking about it
   - Get OK from the boss
   - Have classes that the boss/student must attend
   - Make the classes a must

6. Would you like the program to continue ? 100% yes

—Sample Evaluation Surveys

Princeton Plasma Physics Laboratory
Employer Evaluation

Part A: Please circle the appropriate number:

	Strongly Agree	Agree	DK
1. Do employees have a better understanding of terms used in the workplace?	80	10	10
2. Do they have a more positive attitude towards themselves/others/work?	90	10	
3. Have they had fewer errors or accidents?	40	50	10
4. Did communications improve?	60	20	10
5. Have they improved in preparing forms and other paperwork?	50	30	20
6. Are they able to follow directions more easily?	60	20	10
7. Do they use English on the job more often?			NA
8. Have their math skills improved	40	40	20

Part B. Please answer the following questions:
(SAMPLE RESPONSES)

1. What are the positive aspects of the training program?
   - Improved work skills
   - Employee/Supervisor participation
   - Greatly improved math skills
   - Provides opportunity to improve for those interested in doing so.

2. What are the negative aspects of the training program?
   - Time away from job although this is not a serious negative
   - Time away from workplace
   - Loss of time from work
   - Need computer training

3. List any benefits or improvements that you feel your employee has achieved through this program.

- More secure by having improved work related skills
- More enjoyment of work-less fear of new assignments
- Better able to perform aspects of job requiring math skills.
- Employees self-confidence has improved

4. What recommendations would you make about the program?
   - OK as is - More focus on individual differences
   - Get more people into it
   - Add computer training

5. How would you encourage more people to attend?
   - I would have an employee that needs the skills discuss it with employees that took the courses.
   - By the employee review system. Improvement could be rewarded in some way.

—Sample Evaluation Surveys —

Rhein Chemie
Employer Evaluation
(After a 3 month period)

Part A: Please circle the appropriate number:

	Strongly Agree	Agree	DK
1. Do employees have a better understanding of terms used in the workplace?	80	20	
2. Do they have a more positive attitude towards themselves/others/work?	90	10	
3. Have they had fewer errors or accidents?	50	50	
4. Did communications improve?	80	20	
5. Have they improved in preparing forms and other paperwork?	40	60	
6. Are they able to follow directions more easily?	80	20	
7. Do they use English on the job more often?	100		
8. Have their math skills improved	60		40

Part B. Please answer the following questions:
(SAMPLE RESPONSES)

1. What are the positive aspects of the training program?
   - Communications
   - The program shows the employee that the company cares about them and the company is willing to invest in their future.
   - To better ourselves and to get better at what we are doing.

2. What are the negative aspects of the training program?
   - The people are in it just to get out of work
   - Lost productions time - rescheduling of equipment operations to accommodate the program students.
   - Too much at one time

Rhein Chemie Employer Evaluation

3. List any benefits or improvements that you feel your employee has achieved through this program.

- I have not noticed any as of yet, but I'm sure as time goes by they'll surface.
- The English is much better than before and they understand better.
- Completions of the forms and paperwork
- Follow directions more and the math skills improved
- The men of Spanish decent are communicating better and speaking more English . They seem to be happier and talk a lot more. This is a plus for the company.

4. What recommendations would you make about the program?
   - One class a week
   - Not time off work

5. How would you encourage more people to attend?
   - I would have an employee that needs the skills discuss it with employees that took the courses.
   - Put the information in the employee newsletter.

General Motors Employee Evaluation
Continued

6. Would you like the program to continue ? 100% yes

- There are quite a number of people waiting for an opportunity to be part of such programs who might not get the opportunity to do it any other way.
- Employees who have used our hands to do our jobs not knowing the uture of this plant might have to compete in the workforce by changing our direction of employment.
- I feel everyone in the workplace should have the opportunity to attend even if they score too high in the admissions test.
- I think these classes helped me in ways I didn't have time for before. Life was going by too quickly and I needed confidence and a refresher course to reinforce my basic knowledge. This class provided me with that and I have no idea where I would have gotten that from anywhere else.
- I think that all of the employes should have a chance to attend this program. When people better themselves and have a better attitude about themselves and their co-workers it would make a better working place. As a result a company will benefit too.

Partner Summaries

General Motors Inland Fisher Guide Plant
Summary of Grant Training
June 1, 1991–August 31, 1992

Total # of Students	Students	#Classes Taken
Wave 1	24	120
Wave 2	18	120
Wave 3	19	117
Wave 4	17	85
Wave 5	20	100
Wave 6	19	95
Total	117	637

Number of courses	30
Total # of training hours	748
Employee release cost	$702,000
Job at company	
Quality Operators	117

Demographics

Males		
	Wave 1	10
	Wave 2	8
	Wave 3	6
	Wave 4	8
	Wave 5	9
	Wave 6	6
	Total	47
Females		
	Wave 1	14
	Wave 2	10
	Wave 3	13
	Wave 4	9
	Wave 5	11
	Wave 6	13
	Total	70
Average age		
	Wave 1	36
	Wave 2	36
	Wave 3	35
	Wave 4	37
	Wave 5	40
	Wave 6	39
	Average	37

Education		
	Less than HS grad	
	Wave 1	0
	Wave 2	2
	Wave 3	3
	Wave 4	3
	Wave 5	3
	Wave 6	6
	Total	17
	High School Grad	
	Wave 1	10
	Wave 2	12
	Wave 3	13
	Wave 4	12
	Wave 5	7
	Wave 6	9
	Total	63
	Some College	
	Wave 1	5
	Wave 2	12
	Wave 3	3
	Wave 4	2
	Wave 5	2
	Wave 6	4
	Total	28
	Degree or above	
	Wave 1	1
	Wave 2	1
	Wave 3	0
	Wave 4	0
	Wave 5	1
	Wave 6	0
	Total	3
	Not respond	6
	Total	117
Race		
	Caucasion	88
	Afro–American	23
	Hispanic	5
	Asian–Pacific	1
	Not respond	0
	Total	117

Education		
	Less than HS grad	
	Wave 1	0
	Wave 2	2
	Wave 3	3
	Wave 4	3
	Wave 5	3
	Wave 6	6
	Total	17
	High School Grad	
	Wave 1	10
	Wave 2	12
	Wave 3	13
	Wave 4	12
	Wave 5	7
	Wave 6	9
	Total	63
	Some College	
	Wave 1	5
	Wave 2	12
	Wave 3	3
	Wave 4	2
	Wave 5	2
	Wave 6	4
	Total	28
	Degree or above	
	Wave 1	1
	Wave 2	1
	Wave 3	0
	Wave 4	0
	Wave 5	1
	Wave 6	0
	Total	3
	Not respond	6
	Total	117
Race		
	Caucasion	88
	Afro–American	23
	Hispanic	5
	Asian–Pacific	1
	Not respond	0
	Total	117

# years with co.		
1–5		
	Wave 1	0
	Wave 2	0
	Wave 3	0
	Wave 4	0
	Wave 5	0
	Wave 6	0
	Total	0
6–10		
	Wave 1	7
	Wave 2	7
	Wave 3	6
	Wave 4	7
	Wave 5	7
	Wave 6	8
	Total	42
11–15		
	Wave 1	13
	Wave 2	11
	Wave 3	10
	Wave 4	8
	Wave 5	7
	Wave 6	6
	Total	55
16+		
	Wave 1	4
	Wave 2	0
	Wave 3	3
	Wave 4	2
	Wave 5	6
	Wave 6	5
	Total	20
Total		117

Lang spoken at home	
English	95
Spanish	7
Asian	4
Polish	7
Hungarian	1
Brazilian	1
Italian	1
Ukrain	1
Total	117

Princeton Plasma Physics Laboratory
Summary of Grant Training
June 1, 1991-August 31, 1992

Total # of Students	235
Wave 1	59
Wave 2	67
Wave 3	41
Wave 4	31
Wave 5	37
Number of courses	37
Total # of training hours	882
Employee release cost	$91,082.50
Job at company	
Maintanance	18
Clerical	92
Technicians	125
Total	235
Demographics	
Males	118
Females	117
Average age	39
Education	
Less than HS grad	46
High School Grad	98
Some College	64
Degree or above	27
Race	
Caucasion	181
Afro-American	39
Hispanic	8
Asian-Pacific	7
# years with co.	
1-5	40
6-10	49
11-15	104
16+	42
Head of household	125
Lang spoken at home	
English	223
Spanish	8
Asian	4

Rhein Chemie Final Summary
August 31, 1992

Number of students	18
Number of courses	3
Total # of training hours	108
Employee release cost/2	$3,340.00
Job at company	
Mill operator	18
Demographics	
Males	18
Females	0
Average age	29
Education	
Less than HS grad	14
High School Grad	3
Some College	1
Race	
Caucasion	4
Afro-American	1
Hispanic	13
# years with co.	
1-5	14
6-10	3
11-15	1
16+	0
Head of household	8
Lang spoken at home	
English	9
Spanish	9

Courses taught		
GED	40 hours	10 students
Skills	36 hours	3 students
ESL	32 hours	5 students

St. Francis Medical Center
Skills For Tomorrow Final Report

No. Employees		255
Sex		
	Male	53
	Female	202
Race		
	White	151
	Black	66
	Hispanic	9
	Am. Indians	0
	Alaska Native	0
	Asian/Pacific	4
	Haitian	25
	Total	255
# Limited English		23
# Yrs. Co.		
	0-5	159
	6-10	34
	11-15	25
	16-over	37
Outcomes		
	Improved communication	106
	Increased productivity	117
	Improved Attendance	17
	Increased self-esteem	116
Matching Contributions		
	Admin Salary	$3,092
	Employee Salary	$29.589
	Percentage room use	$1,393
	TOTAL	$34,074

Letters of Intent

Inland Fisher Guide Division
General Motors Corporation
Trenton Plant
Plant Manager

1445 Parkway Avenue
Trenton, New Jersey 08650-1019

September 1, 1992

Ms. Elizabeth A. Miller
U. S. Department of Education
400 Maryland Avenue S.W.
Fwitzer 4512
Washington, D.C. 20202-7327

Dear Ms. Miller:

It was a pleasure for our facility, the Inland Fisher Guide Trenton Plant - GMC, to participate in the Skills for Tomorrow N.O.W. Program. A program of this magnitude would not have been possible without the literacy grant supplied by the U. S. Government.

The program was extremely beneficial for our employes and to the company. Every person who participated in the program was extremely pleased and expressed gratitude for the opportunity to improve their basic skills and problem solving abilities. I believe it has provided our employes with a new outlook and interest in their jobs as well as themselves. That pride in accomplishment is invaluable. Many of our employes who participated have expressed a desire to continue the educational pursuits and have.

I would like to thank you for selecting the IFG Trenton Plant as one of the partners for this grant and I hope this program continues in the future. In today's competitive environment businesses such as ours would not be able to provide these types of programs for our employes without your support. Our facility would be eager to participate in future programs of this type. In today's business environment and global market the U. S. workforce must be able to compete. Improving literacy skills at all levels is the start. To do this it takes involvement from every sector; private and public.

Thank you for this opportunity.

Yours truly,

T. L. Marquis
Plant Manager

Princeton University **Plasma Physics Laboratory**
James Forrestal Campus
P.O. Box 451, Princeton, New Jersey 08543

Ms. Elizabeth A. Miller
U.S. Department of Education
400 Maryland Avenue S.W.
Switzer 4512
Washington, D.C. 20202-7327

August 28, 1992

Dear Ms. Miller;

The Princeton Plasma Physics Laboratory is a beneficiary of and a partner to the education and training of our work force. Employees, skilled in a broad range of disciplines, have built not only this physical facility but also developed the research that has made the Laboratory a leading center in the quest for an inexhaustible energy source for the future. The Laboratory, funded by the U.S. Department of Energy, will continue research activities in this field with the objective of attaining commercially viable electric power generation.

PPPL has long encouraged employees at both the professional and the trades level to further their education and training. With the support of Princeton University and the encouragement of the Department of Energy, the Laboratory has established an internal culture responsive to the educational and the training needs of our work force.

During the 15 months of the Skills for Tomorrow-NOW program a total of 209 individuals who work at the Laboratory benefited from the 30 different courses that were offered. While it is unlikely that a similar level of basic workplace skills instruction will be maintained by the Laboratory in the coming years, our management is prepared to commit both time and money to ensuring the educational gains made under the Federal grant program continue and will not erode with the passage of time.

Commitments to continue existing training and meet new training required by the Department of Energy, by law and by prudent management concern, as well as respond to the increasing need for general developmental training, will challenge our ability to respond and to fund future programs. We are presently formulating budgets for 1993 and as an integral part of that budget planning process the Laboratory will commit to continued support of basic workplace skill training, consistent with the Laboratory's training needs analysis and funding.

Sincerely,

Steven M. Iverson
Head, Office of Human Resources & Administration

ST. FRANCIS
Medical Center

601 Hamilton Avenue Trenton, New Jersey 08629-1986 609-599-5000

August 20, 1992

Elizabeth Miller, Program Officer
National Workplace Literacy Program
U.S. Department of Education
Office of Vocational and Adult Education
400 Maryland Ave. SW Switzer 4512
Washington, DC 20202-7327

Dear Ms. Miller:

In accordance with the Workplace Literacy Grant, we will be providing additional programs to our staff as funding permits.

Sincerely,

Bart Minsky
Vice President, Human Resources

RheinChemie RC

A Bayer USA INC COMPANY

Bruce F. Meikle
President

August 27, 1992

Elizabeth A. Miller
Grants Program Director
U.S. Department of Education
400 Maryland Ave., S.W.
Switzer 4512
Washington, DC 20202-7327

Dear Ms. Miller:

Re: Workplace Education Skills

Over the last several months Mercer County Community College has conducted 3 separate educational programs for our employees. These programs were

1. GED Designed to bring adults up to a high school equivalency.

2. English as a second language

   Designed to improve English language skills of people whose native tongue is not English (in our case Spanish).

3. Skills for Tomorrow

   Designed to improve the basic reading, math and writing skills of our employees.

In order to insure a commitment by the employees and demonstrate the commitment of our company, the courses were conducted at our facility, but one-half on company time and one-half on the employees' own time. The courses were well attended with very minimal attrition.

The feedback from the participants has been very favorable and, although we are applying for federal funding for the continuation of these courses, we intend to extend the program even if it must be at total company expenses.

I personally believe cooperative programs like this between industry and government, to train and educate people, are needed to address many of our social and economic problems. We here at Rhein Chemie do appreciate the efforts and support of your office in this program.

cc: Elaine Weinberg

Rhein Chemie Corporation
1008 Whitehead Road Ext.
Trenton, NJ 08638
Phone: 609 771-9100
Fax: 609 771-0409
Telex: 843-465

cc D Norley
E. weinberg
Mercer Cty

STATE OF NEW JERSEY
OFFICE OF THE GOVERNOR
CN-001
TRENTON
08625

JIM FLORIO
GOVERNOR

October 19, 1992

Bruce Meikle
President
Rhein Chemie
1008 Whitehead Road
Trenton, New Jersey 08638

Dear Mr. Meikle:

Commissioner Barbara McConnell and I are pleased that the Department of Commerce and Economic Development was able to provide you with the assistance necessary to retain your business in Ewing, New Jersey.

We are committed to working with the business community to create economic growth. The employment opportunities which are being generated through your project are an important contribution to the State's overall goals in economic development and the creation of jobs.

We wish you every success in your business endeavors.

Sincerely,

Jim Florio
Governor

Course Outlines

Manufacturing

READING

UNIT I: VOCABULARY IN CONTEXT (2 DAY UNIT)

V1 - Context and Analogy Clues
Work Related Vocabulary

UNIT II: COMPREHENSION

C1 - Basic Reading Comprehension Skills (2 Days)
(Main Idea, Fact/Opinion, Inference)
C2 - Subject, Main Idea, Supporting Details
C3 - Sentence Meaning (Inference, Idioms, Syntax)
C4 - Index Reading/Locating Information
C5 - Index Reading
C6 - Reading/Interpreting Descriptive Phrases
C7 - Literal Comprehension (2 Days)
C8 - Inference Skills
C9 - Inference/Drawing Conclusions
C10 - Drawing Conclusion/Summarizing (2 Days)
C11 - Reading Strategies (Predicting, SQ3R, etc.)
C12 - Key Words/Diagram/Illustration Interpretation
C13 - Glossary Skills

UNIT III: SKIMMING AND SCANNING

S1 - Introduction of Skimming & Scanning (2 Days)
and Scanning for Information
S2 - Scanning for Information in a Graphic (2 Days)
Presentation
S3 - Skim/Scan/Integration of all Reading (2 Days)
Skills

READING 2 DAYS

C1 Comprehension

1. Basic Reading Comprehension

   Handout C1 (9 pages)

2. Reading Article: "Parents: What Do You Owe Your Children?"

   Handout C1 (Page 3)

3. Vocabulary in Context

   Comprehension Skills:

   - Main Idea
   - Fact from Opinion
   - Inference Skills

WRITTEN/ORAL COMMUNICATION

UNIT I: LISTENING SKILLS (4 DAY UNIT)

- L1 - Listening Comprehension (Interview)
- L2 - Listening Comprehension (Listening to Article)
- L3 - Oral Presentation (Problem with Presentation & Interpretation)
- L4 - Oral Presentation (Role Playing & Active Listening)

UNIT II: NOTES, LISTS, FORMS, LOGS, PROCEDURES, DOCUMENTATION (4 DAY UNIT)

- N1 - Filling Out Forms
- N2 - Documentation
- N3 - Procedure Writing
- N4 - Note Taking

UNIT III: OUTLINING AND SUMMARIZING (2 DAY UNIT)

- O1 - Outlining
- O2 - Summarizing

UNIT IV: DESCRIPTIVE WRITING (6 DAY UNIT)

- D1 - Adjectives and Sensory Words
- D2 - Prepositions
- D3 - Writing Clearly (2 days)
- D4 - Writing a Memo
- D5 - Writing a Letter or Complaint

UNIT V: PARAGRAPH WRITING (8 DAY UNIT)

- P1 - Compare & Contrast Paragraph
- P2 - Explanatory Paragraph
- P3 - Procedure Process Paragraph
- P4 - Persuasive Paragraph

WRITING

DAY 1

L1 Listening Comprehension (Interview)

1. Icebreaker Activity:

   - Partners (Interview - 10 minutes)
   - Oral Introduction of Partner
   - Importance of Oral Communication

2. Characteristics of good/bad listeners:

   Handout: L1

COURSE OUTLINE

BASIC SCIENCE

Covers basic concepts of physics and chemistry. Describes applications of these concepts to real-life situations, with an emphasis on applications of relevance to GM workers.

OBJECTIVES

Upon completion of this course, students will be able to:

- Understand basic concepts of physics and chemistry
- Identify applications of these concepts to real-life situations
- Identify jobs where these concepts are put to daily use

TOPICAL OUTLINE

- Measurement
- Density
- The Scientific Method
- Gravity
- Inertia and Newton's Laws of Motion
- Friction
- Simple machines
  - planes
  - levers
  - pulleys
- Center of gravity
- Chemistry
  - matter
  - radiation
  - polymers
- pH
- Electricity
- Fire fighting

OTHER

- 50 hours

SOURCES

Macullo, David. Houghton Mifflin, 1988.

COURSE OUTLINE

CONTINUING EDUCATION

WORK SURVIVAL SKILLS

This course deals with improving assertiveness and attitude at work. Students will learn techniques of dealing with difficult people and effective listening.

OBJECTIVES

Upon completion of this course, students will be able to:

- Maintain a positive attitude at work
- Express themselves in an assertive manner
- Be effective listeners
- Deal with difficult people

TOPICAL OUTLINE

- What you should know about people
- Self-analysis/work attitude scale
- How do people perceive you?
- Classifying behaviors
- Assertiveness quiz
- What happens when you listen
- Ten keys to effective listening
- Four main personality types
- Do you know your "human" rights?
- Describing behaviors
- Dealing with difficult people
- Ten rules for understanding others
- Assess yourself
- What do upset people want?
- Basic coping steps
- Persistence pays

OTHER

- hours

BEST COPY AVAILABLE

COURSE OUTLINE

CONTINUING EDUCATION

ENGLISH IN THE WORKPLACE

Course covers basic English speaking and writing skills needed to communicate effectively at work and outside of the workplace. Much of the vocabulary covered and the reading, writing, and role playing assignments were specific to the work done at Rhein Chemie.

OBJECTIVES

Upon completion of this course, students will be able to:

- Communicate with co-workers and supervisors in English
- Understand instructions given in English
- Be able to read and follow written directions of relevance to work and other important tasks

TOPICAL OUTLINE

- Simple present tense
- Asking questions and reporting information
- Measurement
- Verb: to have
- Prepositions
- Present progressive
- Directions in a building
- Complex sentences
- Simple present vs. present progressive
- Possessives
- Simple reading skills
- Future tense
- Calling in sick
- Future tense: going to do something
- Modals
- Past tense: regular forms
- Comparatives and superlatives
- Past tense: to be
- Past tense: irregular verbs
- Use of the verbs: to lose, to spend, to waste
- Verb tense consistency
- Conditionals and the use of can/will in the past
- Permissives and causatives
- Making a complaint/request/suggestion
- Past progressive
- Quantity: too, enough
- Countable/nonconountable nouns

CONTINUING EDUCATION

COURSE OUTLINE

INDUSTRIAL ENGLISH AS A SECOND LANGUAGE

The course covers oral, written, reading, and comprehension skills. Grammar and spelling rules are taught. Reading passages are read and discussed. Writing assignments stress review or extensions of the concepts presented. Students are also asked to write sentences dictated to them. Students who take Level II should already have some fluency in English.

OBJECTIVES

Upon completion of this course, students will be able to:

- Read information of relevance to their work and for pleasure in English
- Write effectively in English
- Describe work problems and concerns
- Communicate effectively on the production floor and outside of work

TOPICAL OUTLINE

- Verb tense
- Question formats
- Use of the verb "to be"
- Directions/locations
- Spelling rules
- Compound sentences
- Complex sentences
- Comparatives
- Superlatives
- Gerunds and infinitives
- Possessives
- Modals
- Adverbs
- Adjectives vs. adverbs
- Causatives and permissives
- Passive and active voices
- Punctuation
- Countable and non-countable subjects
- Conditionals
- Relative clauses
- Subject/verb agreement

COURSE OUTLINE

CONTINUING EDUCATION

BASIC MATH I

Course covers basic operations involving decimals, fractions, and proportions. The examples used emphasized applications in the workplace.

OBJECTIVES

Upon completion of this course, students will be able to:

- Perform basic operations involving decimals
- Solve word problems involving decimals
- Perform basic operations involving fractions
- Solve word problems involving fractions
- Perform conversions involving decimals, fractions, and percents
- Calculate percent

TOPICAL OUTLINE

- Basic Decimal Concepts
- Addition and Multiplication of Decimals
- Subtraction and Division of Decimals
- Problem Solving with Decimals
- Factoring into Prime Numbers
- Basic Fraction Concepts
- Multiplication and Division of Fractions
- Addition and Subtraction of Fractions
- Addition and Subtraction of Mixed Numbers
- Problem Solving with Fractions
- Ratios and Rates
- Solving Proportions
- Decimal/Fraction/Percent Conversions
- Solving Percent Problems
- Percent Word Problems and Shortcuts
- Percent Increase and Decrease
- Applications of Percents

OTHER

- 60 hours

SUPPLIES

calculators, metric rulers, Cuisennaire rods

COURSE OUTLINE

BASIC MATH II

Reviews basic operations involving fractions, decimals, and proportions. It also covers the basics of statistics, probability, measurement, geometry, and linear algebra. The examples and word problems used emphasize applications in the work environment. When possible, material used in the workplace was used in the lesson.

OBJECTIVES

Upon completion of this course, students will be able to:

- Perform basic operations involving fractions, decimals, and proportions.
- Solve word problems involving fractions, decimals, and proportions
- Demonstrate an understanding of the basic concepts of statistics, probability, measurement, geometry, and linear algebra.

TOPICAL OUTLINE

- Basic Decimal Concepts and Problem Solving Techniques
- Basic Fraction Concepts and Problem Solving Techniques
- Basics of Percents and Solving Percent Problems
- Ratio and Proportion
- Statistics
- Graph Basics
- Data Analysis
- Probability Basics
- Measurement Systems and Geometry Basics
- Linear Algebra

OTHER

- 60 hours

SUPPLIES

graph paper, calculators, metric rulers

TEXTBOOK

Shea, James T., Working With Numbers, Refresher, Steck-Vaughn, Texas, 1990.

COURSE OUTLINE

BEING AN ACTIVE LISTENER

We all say that we "listen and communicate" with our co-workers. Yet sometimes what we say or hear isn't what was communicated. The ability to communicate effectively with others is essential in both business and personal life. Learn how to enhance your listening techniques, ask skillful questions, give and receive constructive feedback, and understand how your communication impacts on others.

OBJECTIVES

Upon completion of this workshop, participants will be able to:

- Listen effectively
- Ask the "right" types of questions
- Give and receive feedback
- Understand the role of body language

TOPICAL OUTLINE

- The art of active listening
- Questioning
- Feedback
- Body language

OTHER

- 4 hours
- .4 CEU's
- May 5 and May 12
  9:00 am - 11:00 am

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Hospital

READING AND WRITING MODULES

CONTINUING EDUCATION

This course is aimed at making job related reading and writing tasks easier and more effective in a hospital environment. The targated audience is front line supervisors with high school degrees who want to sharpen their skills in order to advance their careers.

OBJECTIVES

Upon completion of this course, students will be able to:

- Write short documents requested on-the spot clearly, accurately and in a well organized manner
- Write clear, interesting, and accurate reports and proposals quickly and without frustration
- Read with a purpose, with greater speed, comprehension, and retention of important material
- Use more than one note-taking or record keeping technique and generate written documents from notes

TOPICAL OUTLINE

- Writing
  - four step writing process
  - awareness of audience
  - elements of clear style
  - avoiding common errors
  - write and evaluate samples
  - identify parts of longer documents
  - analyzing relevance of data
  - setting priorities
  - relating form to purpose
  - persuasive writing
- Reading
  - thought clusters, previewing, PQ3R, skimming
  - six functions of paragraphs
  - word attack skills
  - retention, recall, recognition
- Record keeping
  - Text marking, note-taking, Blader flowchart
  - "Tickler" file system and document file

TEXTBOOKS

Brock, Susan L., Better Business Writing, Crisp Publications, Inc., California, 1987.
Dumain, Deborah, Write to the Top: Writing for Corporate Success, Random House, New York, 1983.

CONTINUING EDUCATION

ST. FRANCIS MEDICAL CENTER

COURSE OUTLINE

WRITING FOR EFFECTIVE COMMUNICATION

Writing memos, updating reports or recording in a log can be very time consuming. Learn techniques to write clear, accurate and concise documents in a variety of formats. Choose one, several or all of these writing courses.

COURSE OBJECTIVE

Upon completion of this program, the participants will be able to:

- write well-orgranized, clear, accurate and concise documents in a variety of formats.
- revise, modify, review or generate an existing document based

COURSES

Courses	Hours	Dates	CEU Credits
. Creating a document	4 hours	7/9, 7/11	.4 CEU
. Revising & editing	4 hours	7/16, 7/18	.4 CEU

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CONTINUING EDUCATION

ST. FRANCIS MEDICAL CENTER

COURSE OUTLINE

MATH FOR FRONT LINE SUPERVISORS

Math is all around us - yet sometimes it's hard to compute. Often there's a better or faster way to solve a problem. Now you can choose one, several or all of these math courses to make your math add up to 100%.

COURSE OBJECTIVES

After completing the course, the supervisor will have the mathematical tools to analyze data and predict outcomes more successfully. The instruction will aid the supervisor in making presentations or in giving justifications. The tools in the units will enable the supervisors to manage their department more efficiently. It will also increase their skills in problem resolution.

COURSE MODULES

Courses	Hours	CEU Credits	DATES
. Computing decimals	6 hours	.6 CEU	
. Percentages	6 hours	.6 CEU	
. Data Gathering and Mean, median, mode	8 hours	.8 CEU	
. Measurement (international units, metric)	2 hours	.2 CEU	
. Basic Math Refresher	8 hours	.8 CEU	
. Solving Proportions	6 hours	.8 CEU	

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CONTINUING EDUCATION

COURSE OUTLINE

ESL -LEVEL 2 - FOR HOSPITAL STAFF

Course designed to improve the English speaking and reading skills of hospital housekeeping and food service staff. The curriculum focuses exclusively on skills needed to communicate effectively on the job. Lessons include vocabulary, grammar, form completion, and role playing.

OBJECTIVES

Upon completion of this course, students will be able to:

- Communicate effectively in English with patients and staff
- Read information needed to perform job effectively
- Complete forms correctly
- Report information to supervisors and patients

TOPICAL OUTLINE

- Understanding and applying directions
  - hospital signs
  - names for places/things
  - numbers
  - locations
  - sequence
- Patient relations
  - greetings and small talk
  - requests
  - time phrases and real time
- Understanding forms
- Reporting information

OTHER

- 24 hours

COURSE OUTLINE

WINNING TELEPHONE TIPS

Describes ways of improving the skills of customer service staff who use the telephone in a hospital setting. Identifies tips for dealing politely and effectively with callers. Identifies tips for making calls. (While this course is aimed directly at a hospital staff, the material is appropriate for operators, receptionists, and secretaries in any workplace.)

OBJECTIVES

Upon completion of this course, students will be able to:

- Understand the importance of their role in providing quality service
- Recognize the seven c's of effective telephone service
- Speak on the telephone in a warm, friendly voice that communicates a positive personality
- Handle incoming calls effectively
- Place callers on hold and transfer incoming calls in a courteous and efficient manner
- Take clear and complete phone messages
- Listen effectively to callers
- Understand the art of asking questions
- Recognize and manage caller behavior
- Recognize that attitude is your key to success

TOPICAL OUTLINE

- Telephone management checklist
- The importance of quality service
- The importance of the telephone in the hospital
- Telephone courtesy
- Let your voice smile
- Answering business calls
- Addressing the caller
- Planning and placing business calls
- Placing calls on hold
- Transferring calls
- Taking telephone messages
- Wrapping it up without being rude

OTHER

- 4 hours

COURSE OUTLINE

TAMING YOUR TIME

Explains how to improve the individual's use of time on the job. Emphasis is on establishing priorities.

OBJECTIVES

Upon completion of this course, students will be able to:

- Identify tasks that should take priority for being completed within a given work period
- Establish priorities for the day and for the week
- Establish a plan for completing assignments
- Identify ways to reduce external and internal time wasters
- Identify ways to use time productively

TOPICAL OUTLINE

- What controls your time?
- Inventory for improving time management
- Establish priorities for completing tasks
  - find out what tasks and results are most important to you and your employer
  - start establishing priorities
  - major considerations in setting priorities
- Essentials of planning
- Time wasters
- Using time productively

OTHER

- 3 hours

COURSE OUTLINE

HOW TO CONDUCT A STAFF MEETING

A staff meeting is an useful way to present important information to staff. This workshop offers ways to make staff meetings more effective and efficient. It focuses on the Front Line Supervisor's role, discusses some do's and don't of effective meetings, active listening, giving feedback, handling problems, and follow-up.

OBJECTIVES

Upon completion of this workshop, participants will be able to:

- Use ideas for running an efficient staff meeting
- Learn ways to conduct a meeting
- Answer questions
- Get group participation

TOPICAL OUTLINE

- Know your group
- Dynamics of group meetings
- Do's and Don't
- Preventing and handling problems
- Giving and receiving feedback
- How to answer questions
- Get your group talking - and listening

OTHER

- 4 hours
- 4 CEU's
- May 19 and May 21
  9:00 am - 11:00 am

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CONTINUING EDUCATION

COURSE OUTLINE

MANAGING THE STRESS/TIME CONFLICT

(or How to Channel Your Donna Reed Syndrome)

Identifies the sources and symptoms of stress. Provides techniques and strategies for striking a balance between all the demands for your time - and keeping stress at a minimum..

OBJECTIVES

Upon completion of this course, students will be able to:

- Understand what stress is and is not
- Understand that stress affects people differently
- Recognize physical symptoms associated with stress
- Use appropriate techniques to relieve stress

TOPICAL OUTLINE

- Aspects of stress
- Personalities and stress
- Stress: What will you do about it?
- Biochemical changes from stress
- Things we can do to help relieve stress
  - visualization
  - relaxation
  - exercise
  - nutrition
  - affirmations
- Coping with deadlines, priorities, and hassles
- Getting a grip on stress
- Controlling stress at home
- Controlling stress at work
- How to make changes

OTHER

- 6 hours

COURSE OUTLINE

THE ART OF CREATIVE PROBLEM SOLVING

Describes how to identify and analyze problems encoutered at work. Provides strategies for solving proglems at work and at home. Includes role-play using work situations.

OBJECTIVES

Upon completion of this course, students will be able to:

- Describe and analyze problems encountered at work
- Write a problem statement
- Use an orderly, step-by-step process to solve problems
- Apply creativity to the problem solving process
- Use the brainstorming technique to help solve problems
- Understand the difference between technical and people problems
- Solve problems that involve the organization

TOPICAL OUTLINE

- Definition of a problem
- Guidelines for writing a problem statement
- Steps in problem solving
- Brainstorming
- Creative thinking
- People and problems
- Characteristics of technical and people problems
- Action plan for problem solving

OTHER

- 6 hours

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COURSE OUTLINE

WINNING THE STRESS/TIME CONFLICT

Who says that computers gives you more hours in the workday? In the 1990's there are more people to deal with, decisions to make, and telephones and correspondence to answer. This two session workshop provides techniques and strategies for striking a balance between all the demands for your time – and keeping stress at a minimum.

OBJECTIVES

Upon completion of this seminar, participants will be able to:

- Analyze personal and professional roles at the hospital
- Prioritize activities and set realistic goals
- Assess use of time by identifying and eliminating time wasters
- Define stress and identify its sources
- Recognize the physical symptoms associated with stress
- Break the stress cycle using appropriate techniques
- Discuss the link between stress management and time management
- Develop a plan to achieve a balance

TOPICAL OUTLINE

- Can you do it all?
- Time management

Prioritizing your commitments
–Tips for balancing time
–Handling crisis
–Avoiding procrastination

- Recognizing and reducing Stress

–Causes of stress
–Symptoms of stress
–Techniques to reduce stress

OTHER

- 6 hours
- .6 CEU's
- April 28, April 30
  9:00 - 12:00 Noon

Research Facility

COURSE OUTLINE

READING FOR BASIC UNDERSTANDING

Basic literacy course which focuses on teaching students to read material they use at their workplace as well as on general basic reading skills. Workplace manuals and textbooks are used.

OBJECTIVES

Upon completion of this course, students will be able to:

- Read material they need to understand at their workplace
- Read material they need to understand outside of their workplace
- Read material of their own choosing

TOPICAL OUTLINE

Topics covered include the following:

- Silent e rule
- Vowel identification
- Syllabication
- Suffixes
- Vowel sounds
- Word families
- Dolch words/300 frequently used words in rank order
- Initial and final blends
- Initial digraphs
- Compound words
- Diphthongs
- Cursive writing
- Homonyms/homophones
- Pronouns
- Contractions/possessives
- Uncountable and countable nouns

OTHER

- Basic Literacy is an ongoing, year round class

COURSE OUTLINE

READING FOR IMPROVED TECHNICAL COMPREHENSION

DESCRIPTION:

Employees will use technical documents and work related material to develop flexible ways to interpret materials used daily. Emphasis on technical vocabulary and efficient methods of reading technical material.

GOALS:

Upon completion of this program, participants will be able to:

- Understand technical material in manuals more clearly
- Have the tools to follow directions from a manual
- Locate information in texts
- Read technical vocabulary used in the workplace
- Interpret graphs
- Read faster by using skimming and scanning techniques

OUTLINE:

Techniques for comprehension of technical material	14 hours
Skimming and scanning for purpose	4 hours
Technical vocabulary	4 hours
Graphic interpretation	3 hours
Locating information	3 hours
Following written procedures	4 hours
Oral communication	4 hours

Monday and Wednesday, 11:00 am - 1:00 pm
June 17, 1991 to August 16, 1991

COURSE OUTLINE

WRITING FOR EFFECTIVE COMMUNICATION

DESCRIPTION:

Participants will write or modify existing documents to create well organized, clear and concise text in a variety of formats. They will complete various logs, forms, and follow existing formats in the workplace.

GOALS:

Upon completion of this program, participants will be able to:

- Write clear, well organized, accurate and concise documents in a variety of formats
- Revise, modify, review and generate from an existing document
- Complete forms, log entries, and follow existing formats for reports

OUTLINE:

Creating a document	10 hours
Revising and editing	10 hours

Possible class times

Tuesday and Thursday 11 - 1 pm
June 18 - July 19, 1991

COURSE OUTLINE

CONTINUING EDUCATION

WRITING CLINIC

A course aimed at refreshing writing skills. Students will learn techniques that will help them communicate effectively, write quickly, powerfully, and clearly. Geared to people who write memos, short reports, or letters.

OBJECTIVES

Upon completion of this course, students will be able to:

- Write short documents quickly, powerfully, and clearly

TOPICAL OUTLINE

- Steps for writing any document
- Write for your audience
- Different styles of writing
- Editing
- Grammar and punctuation

OTHER

- hours

TEXTBOOKS

Brock, Susan, Better Business Writing, Crisp Publications, California, 1987.
Dumaine, Write to the Top: Writing for Corporate Success

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CONTINUING EDUCATION

COURSE OUTLINE

BUSINESS WRITING AT PPPL

Cut your business writing time using six proven methods. Learn ways to plan and organize your ideas, get started, and create memos, letters and reports that get the results you want.

OBJECTIVES

Upon completion of this seminar, employees will be able to:

- Organize yourself and your reader
- Learn strategies for starting and organizing writing
- Group information for the most impact
- Revise and edit own work
- Generate written material that works

TOPICAL OUTLINE

- Knowing your reader
- Getting started
- Sequencing your ideas
- Writing for clarity, consistency and impact
- Editing your work

OTHER

- DATE: May 5, 7, 12, 14, 19, 21
  Monday, Thursday
  1:00 pm - 3:00 pm

- 12 hours
- 1.2 CEU's
- Textbook provided

COURSE OUTLINE

PHYSICAL SCIENCES OVERVIEW FOR LAB TECHNICIANS

Survey courses in physical, electrical and chemical science in which participants can apply basic principles and fundamentals of science to their jobs at PPPL. While these courses should be particularly beneficial for Laboratory technicians who will be working with Tritium, it is open to all interested parties.

OBJECTIVES

Upon completion of this course, employees will be able to incorporate concepts in physical, chemical and electrical science to work at the Lab.

PHYSICS OVERVIEW FOR LABORATORY TECHNICIANS

TOPICAL OUTLINE

Measurement	Motion	Newton's Laws
Gravity	Heat	Wave
Optics		

OTHER

- DATE: March 10 - 19, 1992
  Tuesday, Thursday
  1:00 pm - 3:00 pm

- 16 hours
- 1.6 CEU's

COURSE OUTLINE

CHEMISTRY OVERVIEW FOR LABORATORY TECHNICIANS

TOPICAL OUTLINE

Atomic structure	Periodic Tables
Isotopes	Electronic configuration
Bonding	Nuclear Interaction
Gas Law	

OTHER

- DATE: March 24 - April 2, 1992
  Tuesday, Thursday
  1:00 pm - 3:00 pm
- 8 hours
- .8 CEU's

COURSE OUTLINE

ELECTRITY OVERVIEW FOR LABORATORY TECHNICIANS

TOPICAL OUTLINE

Charge	Current
Magnetism	Colomb's Law
Ohm's Law	Electromagnetic Spectrum
Simple Circuits	

OTHER

- DATE: April 7 - 16, 1992
  Tuesday, Thursday
  1:00 pm - 3:00 pm
- 8 hours
- .8 CEU's

COURSE OUTLINE

Reading a Blueprint

This course is designed for technicians at Princeton Plasma Physics Laboratory who need to read and understand blueprint and specifications in their daily operations. It provides employees with basic skills to reference blueprints and specifications as they relate to work being performed at PPPL, and focuses on understanding symbols, abbreviations, and general and supplemental conditions of plans and specifications. All types of blueprints will be used, including those designed to illustrate elevation sections and details. Plans will include architectural, mechanical, electrical, and plumbing.

COURSE OBJECTIVES

After completing the course, the technician will be able to:

- o Find specific components on a set of blueprints
- o Identify where to find abbreviation meanings on a blueprint
- o Identify symbols on a blueprint
- o Interpret a plumbing riser diagram and symbols related to it
- o Identify electrical wire gauge and type, and follow rootings
- o Identify mechanical symbols

COURSE OUTLINE

- o Types of drawings
  - --Plan
  - --Sections
  - --Details
  - --Elevations
- o Different types of trade
  - --Mechanical
  - --Electrical
  - --Plumbing
  - --Architectural

- o Symbols
- o Abbreviations
- o Specifications
  - --CSI format
  - --General conditions
  - --Supplemental conditions
- o Scales
- o Plans
  - --Elevations
  - --Details
  - --Sections
  - --Plan views
- o Symbols and Abbreviations
  - --Title blocks
  - --Symbols lists
  - --Abbreviation list
- o Specifications
  - --Reference written language
- o Electrical specifications
- o Mechanical specifications
- o Plumbing specifications

OTHER

20 hours
2.0 CEU

DATES:

July 8 - August 10, 1992

TIME:

7:30 am - 9:30 am

INSTRUCTOR:

Stephen Golden

CONTINUING EDUCATION

COURSE OUTLINE

ELEMENTARY ALGEBRA FOR PEOPLE WHO DON'T "LOVE" MATH!

Rusty calculating math on your job or at home? Uncertain how to calculate markup at the store? You are not alone!. In this course we cover basic elementary algebra. Come learn (or relearn) algebra in a relaxed, logical way. This is an easy way to prepare yourself for other math courses in college, or math you use on the job.

OBJECTIVES

Upon completion of this course, employees will be able to:

- Understand the underlying principles of solving for the unknown

TOPICAL OUTLINE

- Working with real numbers
- Evaluating expressions
- Solving equations
- Translating verbal expressions into mathematical expressions

OTHER

- DATES: March 2 - May 20, 1992
  Monday, Wednesday
  9:30 pm - 11:30 pm

- 48 hours
- 4.8 CEU's

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CONTINUING EDUCATION

COURSE OUTLINE

BASIC MATH III

Course covers statistics, measurement, geometry, and exponential notation, and scientific notation. Workplace applications are stressed.

OBJECTIVES

Upon completion of this course, students will be able to:

- Perform basic operations involving statistics
- Perform basic operations involving measurement
- Perform basic operations involving geometry
- Demonstrate an understanding of the basics of exponential notation and scientific notation
- Identify ways these concepts are used in the workplace

TOPICAL OUTLINE

- Graphs/statistics
- Measurement Systems: English (U.S.) + metric
- Geometry
- Exponential Notation/Scientific Notation

OTHER

- 32 hours

TEXTBOOK

Aufmann, R. and Barker, V., Basic College Mathematics, Houghton Mifflin, 1991.

COURSE OUTLINE

FN717 - TELEPHONE COURTESY AND CUSTOMER SERVICE

The telephone is one of your most powerful business tools! The way you handle calls determines whether you create business or lose it. Polished telephone techniques, a positive attitude, and the ability to understand customers needs are essential to providing quality customer service. After practicing these skills during the workshop, you will be able to apply them on the job immediately. You will develop your confidence on the phone and increase your contribution to your organization's success.

OBJECTIVES

Upon completion of this workshop, participants will be able to:

- o Define quality customer service
- o Identify and understand customer needs
- o Manage the customer's perception of the organization
- o Discuss the essential role customer service plays in the success of the organization
- o Provide high quality customer service

TOPICAL OUTLINE

- o The importance of quality customer service
- o Essential telephone techniques
  - -- voice
  - -- listening
  - -- answering and closing
  - -- managing objections
  - -- asking questions
  - -- delivering bad news
  - -- recognizing and managing caller behavior
- o Understanding customer needs
  - -- what customers want
  - -- attitude - the key to success
- o Managing customer perception exercises
- o Action plan for better customer service

OTHER

- o 9 hours
- o .9 CEU
- o Text required

PRESENTING A POSITIVE SELF-IMAGE

This seminar will give you the techniques needed to present yourself in the best way possible during work situations. Often, simple techniques can make the difference in the way you are perceived and consequently, the way people treat you.

OBJECTIVES

Upon completion of this seminar, participants will be able to:

- Develop and maintain a positive self-concept
- Define self-talk
- Develop a professional image
- Think assertively

TOPICAL OUTLINE

- What is self-concept?
- How to use self-talk
- The impact of image in your professional development
- Assertive behavior and why it is important

COURSE OUTLINE

THE ART OF ACTIVE LISTENING

We all say that we "listen and communicate" with our co-workers. Yet sometimes what we say or hear isn't exactly what was communicated. The ability to communicate effectively with others is essential in both business and personal life. Learn how to enhance your listening techniques, ask skillful questions, give and receive constructive feedback, and understand how your behavior impacts others.

OBJECTIVES

Upon completion of this course, employees will be able to:

- Listen effectively
- Ask the "right" questions
- Give and receive constructive feedback

TOPICAL OUTLINE

- The art of active listening
- Questioning
- Feedback

OTHER

- DATE: March 4, 9, 11, 1992
  Wednesday, Monday, Wednesday
  1:00 - 3:00 pm

- 6 hours
- .6 CEU's

COURSE OUTLINE

MAKE STRESS WORK FOR YOU

In the Chinese language, the words problem and opportunity can be used to describe the same situation. When a problem needs to be solved, rather than viewing the problem as a barrier, it should be seen as an opportunity to display creativity.

Participants in this workshop will learn how to confidently approach problems with a step-by-step method of developing and choosing solutions. Exercises, presentations, and discussions will demonstrate the creative potential to manage stress situations creatively and effectively.

OBJECTIVES

Upon completion of this program, participants will be able to:

- Recognize and define problem solving and decision making situations
- Use a step-by-step method of solving problems and making decisions
- Use greater creativity in solving problems

OUTLINE

- Problem solving and decision making defined
- Step-by-step problem solving outline
- Creativity defined
- Creativity exercises
- Problem solving exercises
- Personal problem solving action plan

OTHER

- 6 hours
- .6 CEU

COURSE OUTLINE

PERSONAL PRODUCTIVITY

It is 9:00 AM and you begin work on a well planned day. At 9:15 AM your boss comes in with an emergency that will consume your time for the next two days.

Do you know how to make up for the lost time? Can you re-group your thoughts and move to other work? Do you lose more time because of stress caused by the situation? Could you have handled the interruption in a different way? Do you believe that you have too much work and too little time?

Personal Productivity is a workshop designed to help participants manage their time and energy to meet goals in today's changing work environment.

OBJECTIVES

Upon completion of this program, participants will be able to:

- o Explain the need for personal productivity
- o Discuss the importance of goal setting for getting things done
- o Set specific work standards
- o Set priorities for assigned work
- o Identify and use time management techniques
- o Create a personal management work improvement plan

OUTLINE

- o Barriers to personal productivity
- o Goal setting and priorities
- o Setting work standards
- o Time management techniques
- o Personal work improvement plan

OTHER

- o 6 hours
- o .6 CEU

Teachers' In-service

OBJECTIVES

Upon completion of this workshop, you will:

- Explain the role of the presenter
- Understand what to do before, during, and (in some cases) after the presentation
- Discuss ways of preventing and handling problems which may occur during a presentation
- Have developed skills of active listening, giving feedback, and encouraging participation
- Use presentation materials effectively
- Evaluate your own presentations and the presentations of others

TOPICAL OUTLINE

INTRODUCTIONS

OVERVIEW

- General Purpose
- Specific Objectives
- Schedule

MAKING SUCCESSFUL PRESENTATIONS (DEMONSTRATION AND EVALUATION)

- The Presenter's Role
- Things to Avoid
- Handling Problems
- Giving Feedback
- Active Listening
- "Nitty-Gritty" Details

PRESENTATION ASSIGNMENTS

PRESENTATIONS AND FEEDBACK

GENERAL DISCUSSION AND WRAP-UP

THE PRESENTER'S ROLE

AN EFFECTIVE PRESENTER

- o Makes his or her role clear at the beginning of the session.
- o Lets the group take care of its own interaction and solve its own problems.
- o Does not dominate the session.
- o Keeps the group focused on the session topic and the time schedule.
- o Calls attention to the group's processes, but refrains from evaluating the group's ideas or plans.
- o Helps the group apply the concepts presented to specific examples.

EFFECTIVE PRESENTATION INCLUDES

Opening the Session

- o Introduce yourself and the participants to each other.
- o Review the objectives and schedule.
- o Ask for consensus on the purpose of the session.

Starting Discussions

- o Ask "overhead" questions, directed to the group as a whole.
- o Ask directed questions, focusing on a particular individual.
- o Refer to previous discussions and events.
- o Use case histories and examples.
- o Set an open climate for discussion.

Sustaining Discussions

- o Ask questions.
- o Listen actively.
- o Give feedback.
- o Encourage participation; try to involve everyone.
- o Discourage criticism.
- o Reinforce useful comments.
- o Refer questions back to the group.
- o Avoid providing answers yourself.
- o Be impartial; avoid taking sides.
- o Encourage humor.

THE PRESENTER'S ROLE
Continued

Guiding the Discussion

- o Direct it toward objectives of the session.
- o Stay on the topic.
- o Keep the discussion moving.
- o Table extraneous issues.
- o Emphasize the importance of the topic.
- o Develop points fully.
- o Summarize key points.
- o Write legibly on flip chart or chalkboard.
- o Stay on time, but make this your responsibility, not the group's.

Planning Follow-up

- o Help the group with action planning.
- o State follow-up responsibilities, if any, for yourself.

Modeling Good Practice

- o Demonstrate that you understand concepts presented by applying them.

SOME THINGS TO AVOID

"DOING YOUR OWN THING"

- o Don't try to be the expert/sole authority.
- o Serve the needs of the group instead of your own.

OVERSTRESSING CONTENT

- o Emphasize practice, not just theory.

USING JARGON

- o Use plain English.

FAILING TO MEET EXPECTATIONS

- o Explore the group's expectations early in the session.
- o Clarify what can and cannot be accomplished during the session.

DEPENDING TOO MUCH ON OTHERS

- o As group leader, the responsibility for the session is yours.
- o Check on details yourself.

MISREADING THE GROUP

- o Ask the participants what they are concerned about and what they want to do.

LOSING CONTROL OF EMOTIONS

- o Avoid criticizing or taking sides during a discussion, especially when it is emotionally charged.

EQUIPMENT FAILURES

- o Always check equipment carefully before the session.
- o Do the best you can under the circumstances.

HANDLING PROBLEMS

The following is a list of problems which you might encounter while making a presentation, with some suggestions about how to handle them. The basic rule in handling all such problems is to **TRUST THE GROUP.** Given the chance, the group almost always can and will solve its own problems.

QUESTIONS YOU CAN'T ANSWER

- o Refer them back to the group.
- o Refer them back to the person asking them.

QUESTIONS YOU CAN ANSWER

- o Give the group a chance to find answers on their own first.
- o When you know the answer and no one else does, answer the question.

EVERYONE TALKING AT ONCE

- o Ask for the group's attention.
- o Be silent and wait for attention.
- o Ask that one person talk at a time.

PEOPLE WHO DON'T PARTICIPATE

- o Try to assess why.
- o Don't force anyone to participate.
- o Ask them direct questions, if appropriate.
- o Take a break and speak to the individual privately.
- o Ask for written responses.

SIDE CONVERSATIONS

- o Tolerate them unless they disturb others.
- o Ask people to share their comments with the group.

ARGUING

- o Maintain emotional control.
- o Refer the person's comments back to the group.
- o Ask the person if you can proceed with the session, even though the problem hasn't been resolved.
- o Involve the person in the session as much as possible without diverting the work of the group to other agendas.
- o Ask the person to put aside the problem for discussion at a later time.

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HANDLING PROBLEMS
Continued

QUESTIONING THE PURPOSE OR STRUCTURE OF AN ACTIVITY

- o Restate the objective or purpose of the activity.
- o Ask the group to try it, and offer criticism during the evaluation period.

LACK OF INTEREST

- o Ask questions to find out what people are concerned about.
- o Use examples and emphasize points which relate to their interests and concerns.
- o Talk to people individually during a break to ask what you can do to make the session more relevant.

FORCED ATTENDANCE

- o Take people aside and talk to them individually.
- o Point out that the attendance problem is theirs, not yours.

WRONG ANSWERS

- o Don't put anyone down.
- o Ask the other participants what they think.

ASKING FOR YOUR OPINION

- o Give your opinion briefly and return to the session.
- o Don't be defensive or justify your opinions to the group.

REAL PROBLEMS THAT SURFACE AND NEED TO BE DEALT WITH

- o Ask whether the group wants to work on the problem or continue with the session as scheduled.
- o Schedule a follow-up meeting, if possible, to complete work on the problem.
- o Try to solve problem during a break.

ACTIVE LISTENING

In active listening, the listener shares responsibility with the speaker of ensuring that they understand each other. Active listening does **not** mean staying quiet; rather it involves asking questions and paraphrasing what the other person has said to make sure all points are clear.

KEEP AN OPEN MIND You may not like or approve of what the speaker is saying, but if you close your mind to it, you may never hear the whole message. Avoid making judgments too early.

PAY ATTENTION TO THE CONTENT Try to focus on what the speaker is saying, rather than on the speaker himself or her self. Don't let the speaker's style and language keep you from hearing the message.

TAKE NOTES It is usually a good idea to take written notes but you may sometimes have to take mental notes instead. Be sure you focus on all important points. Avoid taking too many notes on trivial points.

CONCENTRATE You cannot be an effective listener if your mind is wandering to something else.

SEARCH FOR INFORMATION Avoid jumping to premature conclusions. Ask questions until you have all the pertinent information.

FACE THINGS YOU DON'T LIKE OR UNDERSTAND Try not to avoid dealing with things that are uncomfortable or unfamiliar to you. Ask questions to learn more about content that is different from what you are used to hearing.

AVOID BARRIERS TO COMMUNICATION Don't let extraneous issues, concerns, or behaviors block you from listening to what the other person is saying. Be tolerant of personal differences.

PRESENTATION DETAILS

Effective presentation can depend on the details. The following are some suggestions.

BEFORE THE SESSION

Make arrangements for the room and the equipment. It is almost always best to take care of these details yourself. The room should be scheduled early, and rechecked well before the presentation begins. Use a checklist to insure that you leave nothing out.

Notify the participants. It is usually best to notify the participants in writing. Be sure to include the exact starting time, duration, and location of the session.

Prepare yourself for the session. Review the material carefully and make decisions about adding or deleting material. Tailor the presentation to the group's needs.

Order handout materials. Have copies of all handouts made well before the session. Check them yourself to be sure all is in order.

Set up the room for the session. Arrive early and arrange the furniture to match the purpose of the session. Awkward seating arrangements can work against your efforts to involve everyone in the activity.

Check the equipment and materials to be sure everything you need is in working order.

DURING THE SESSION

Use a flip chart and felt tip markers. Chalkboards are acceptable, but flip charts are more effective. They are more legible, and the pages can be posted on the walls for the whole group to refer back to throughout the session. Write legibly, using large letters.

Post the flip chart sheets. As you complete flip chart sheets, use masking tape to post them around the walls of the room for reference during the session. This will make it easy for you to make specific references to things said or agreed on earlier in the session. By doing this you can tie together various parts of the presentation.

Schedule (plan, give) breaks at appropriate times. Be sure to take your breaks with the group. You should not be out of the room while the group is in session.

Have participants evaluate the presentation.

FEEDBACK

"Feedback" is a way of helping another person look at his/her behavior. Communication gives information about how he/she affects others, and helps the individual redirect behavior to achieve goals.

Not all feedback can produce a behavior change. Below are some criteria for useful feedback:

- It is **descriptive rather than evaluative**. Describe one's own reaction. The individual is then free to use or not use the feedback. Avoiding evaluative language reduces the need for the individual to react defensively.

- It is **specific rather than general**. Being labled "dominating" will probably not be as useful as to be told, "Just now, when we were deciding the issue, I felt that you did not listen to what others said, and I felt forced to accept your arguments or face attack from you."

- It **takes into account the needs of both the receiver and the giver** of feedback. Feedback can be destructive when it serves only the giver's needs and fails to consider the needs of the person on the receiving end.

- It is **directed toward behavior which the receiver can do something about**. Frustration is only increased when a person is reminded of some shortcoming over which he has no control.

- It is **well-timed**. Feedback is generally most effective at the earliest opportunity after the behavior. (Also consider the person's readiness to hear it, support available from others, etc.)

- It is **solicited rather than imposed**. Feedback is most useful when the receiver requests it.

- It is **checked to insure clarity**. One way of doing this is to have the receiver try to re-phrase the feedback he has received to see if it corresponds to what the giver had in mind. One advantage of the group situation is that when feedback is given in the training group, both the giver and receiver have the opportunity to check with others on the accuracy of the feedback.

"Feedback" is a way of giving help. It is a corrective mechanism for the individual who wants to learn how well his behavior matches his intentions. It answers: "How do others perceive me? How do I affect others?" It is also a means for establishing one's identity, by helping to answer: " Who am I? Who do I want to be?"

PRESENTATION CHECKLIST

_____ Room scheduled: Location _____ Room _____

Date _____ Time _____

_____ Participants notified

_____ Videotape cassette player, television set(s), connecting cords

_____ Easel and paper pad (flip chart--one for each discussion group is preferable)

_____ Extra paper pad for easel

_____ Felt markers for easel pad (or chalk and eraser for chalkboard)

_____ Masking tape

_____ Copies of participant materials

_____ Copies of evaluation materials

_____ 5 x 8 index cards (fold in half for name cards)

_____ Pencils, pens

_____ Notepaper

_____ Furniture arranged

_____ Coffee/refreshments

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Handbook For Workplace Literacy Instructors

A HANDBOOK FOR WORKPLACE LITERACY INSTRUCTORS

Prepared Under a United States Department of Education
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MERCER COUNTY COMMUNITY COLLEGE
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INTRODUCTION

This handbook was developed to provide Mercer County Community College Workplace Literacy instructors with a guide to making effective presentations. The participants in the program have special needs that will not be met by a traditional approach to classroom instruction.

The college's Center for Training and Development has been working with business and industry for over a dozen years. During that time, it has developed a program to train trainers to deliver corporate training programs. The techniques described in this handbook are similar to those taught to the center's training staff and are based on principles of adult education.

The handbook is divided into sections. The first section provides you with a theoretical perspective on adult development and adult learning in general. It is based on both current and classical thinking concerning developmental tasks and learning needs of adults. It concludes by relating adult learning challenges to those that are faced by workplace literacy students, and consequently, you their instructors.

The second section focuses on the techniques of effective presentations. We look at the role of the presenter and how to conduct the presentation. Specific examples of techniques are given, so that you can use this part of the book as a reference guide.

The concept that is central to working with adults is that you are the *facilitator* of learning. You are an andragog, someone who practices the art and science of assisting adults to learn, not a pedagog, someone who practices the art and science of teaching children. You are a trainer, a presenter, a teacher, an instructor. All of those terms will be used interchangeably.

SECTION I: AN OVERVIEW OF ADULT DEVELOPMENT AND LEARNING

Perspectives on Adult Development

Merriam and Caffarella (1991:96-114), state that development has been predominantly viewed from a psychological point of view, that is, as an orderly, sequential, irreversible process, in which there are critical periods when major physical and psychological qualitative changes are noticed.

That certainly holds true in the early years (birth to early adulthood). Clear lines of demarcation exist between the stages of infancy and toddlerhood, toddlerhood and childhood, childhood and adolescence, and adolescence and adulthood.

However, psychosocial qualitative changes are not as pronounced once the individual enters adulthood. Erikson (1963:266-269) discusses two adult stages in his "Eight Ages of Man." However, these stages, "Generativity vs. Stagnation" and "Ego Integrity vs. Despair," do not focus on the individual's continued growth, but rather his preparation of the next generation and to exit this world on a positive note. As Erikson (1963) discusses each of the first six ages, it is clear the there is a major shift in psychosocial functioning.

Merriam and Caffarella (1991:97) suggest that we have to look at adult development from a physical aging and sociocultural perspective, as well as from the psychological perspective. They see these three components as integrated into a holistic picture of adulthood (Merriam and Caffarella, 1991:97).

Physical Aging

Aging takes its toll. Through our thirties and forties we have the capacity to bounce back from certain physical ailments. However, in the fifties and the sixties degenerative biological processes become stronger than regenerative ones and we experience major changes on the structures within the body (Merriam and Caffarella, 1991:99).

Sense deterioration can have an impact on the adult's ability to learn, especially in a formal setting. However, most sight and hearing problems can be

corrected through the use of glasses, hearing aids and surgery. Adults who choose to learn on their own encounter less sense problems than do those who choose formal education (Merriam and Caffarella, 1991:101).

Changes in the central nervous system result in changes in reaction time. This has implications for learning manual skills and those that require the extensive use of memory (Merriam and Caffarella, 1991:101).

Psychological Changes

Earlier, it was mentioned that adult development seems void of the same types of qualitative changes that characterize the development in earlier life. Merriam and Caffarella (1991:107) discuss life events as the keys to adult development. Life events can be either personal or societal. They are both milestones and processes. At times, one has to use coping strategies to deal with these life events. Merriam and Caffarella (1991:107-108) report that Knox, Brookfield and others suggest that engaging in learning activities is one way in which adults cope with life events.

Sociocultural Factors

Merriam and Caffarella (1991:110) quote Bee as saying that while social class does not necessarily determine how adults live out their lives, class probably does shape choices, opportunities, and obstacles, as well as the way in which they are handled.

The roles one plays require certain competencies, which in turn require learning. As one moves from field to field, or as one's field changes, there is a need to address those role-associated competencies (Merriam and Caffarella, 1991:113-114).

Merriam and Caffarella (1991:6-21) see the social and cultural contexts as shapers of adult learning. In particular, they focus on demographics, economics, and technology, and on the interrelationships of these factors.

Demographically, we have more adults and more older adults than ever before. We also have a rising minority population adding to our ethnic and cultural diversity (Merriam and Caffarella, 1991:6-10).

Economically, American society is changing. " ... there is a recognition of a global interdependence, a shift to a service economy, and a change in the composition

of the labor force (Merriam and Caffarella, 1991:11)." Learning activities have to be developed that will allow Americans to more effectively compete in the world market. Additionally, people are being dislocated from manufacturing jobs as we convert to a service economy (Merriam and Caffarella, 1991:12-13). Finally, minority and women workers still do not have the same access to the better paying jobs (Merriam and Caffarella, 1991:13).

Technologically, we are in the middle of a revolution. We have become an information society. Professionals' knowledge becomes outdated in a few short years, auto mechanics must work with sophisticated diagnostic equipment, and homemakers must learn new ways to shop and prepare food (Merriam and Caffarella, 1991:16).

Transitions

Transitions are changes that occur when entering a new stage of life or when a specific life event occurs. These transitions may either be anticipated or unanticipated, but they generally cause some disorientation, and require some reorientation. Transitions affect adult development relative to the way the adult reacts to the transition (Merriam and Caffarella, 1991:108-109).

Merriam and Caffarella (1991:109) cite Schlossberg's "Four S's" for coping with transitions: situation (how viewed), self (inner strength), supports (internal and external), and strategies. As the adult moves through the transition cycle and judges the experience and the reaction to the outcome, the adult will either have a positive or negative view of the transition.

Changes, transitions result in the need to learn. "... the learning activity must be directly related to the kind of change an adult is making." "... learning is most often related to transitions involving career and family, although other spheres ... are also important (Merriam and Caffarella, 1991:109)."

Adult Learning: Theories and Research

What is Learning?

According to Smith (1982:34) "learning" is very difficult to define because the term has a multiplicity of uses. It is viewed as (1) a product, the outcome of an

experience, (2) a process through which behavior is changed, shaped, or controlled, or (3) a function, a change that can occur when people are motivated to engage in the activities to produce that change. It is a complex activity that involves the mind, the emotions, and the total self. It is something that we have to experience (Smith, 1982:34-35). Smith (1982:35-36) lists six observations about learning:

- o It is life long.
- o It is a personal and natural process.
- o It involves change.
- o It is related to human development.
- o It is about experience and experiencing.
- o It has its intuitive side.

Participants in Adult Education

Compared to non-participants, the typical individual involved in adult education is better educated, younger, has a higher income, and is more likely to be white and employed full time (Merriam and Caffarella, 1991:74). Individuals engage in adult education for a variety of reasons and the composition of people in one segment of adult education could be markedly different from another. Smith (1982:49-54) indicates there are four special populations of adult learners, the undereducated, people returning to college, the professional, and the older person.

The undereducated, those needing basic skills training, are found in a variety of literacy programs. They are usually anxious about entering programs, but will do so in a climate that minimizes this anxiety (Smith, 1982:49-50). MCCC established an Industrial English as a Second Language course at a local General Motors plant. The company provided five weeks time to attend class. The results were outstanding. One woman summed up her motivation for completing the course by saying, "Now I can speak to my boss and my teenage child without feeling ashamed."

Those returning to college tend to be more positive about education than the undereducated. In college settings the majority are women. Their biggest concern is whether they can keep up with the typical 18-22 year old student (Smith, 1982:50-51)

The professionals have relatively high incomes, access to resources, and a variety of life-styles. They believe in education and have the tools for learning. They feel pressed for time. Their learning fills perceived gaps in their knowledge and is largely self-directed (Smith 1982:51-53).

Older persons face problems associated with physical aging. Education is desired for self-expression. They need courses that enable them to use their experiences (Smith, 1982:53-54).

In the workplace literacy program, your students could come from any of these groups but are most likely to be from the undereducated and the older populations. Undereducated in either the sense that they do not have the basic education that one should have, or that they do not have the knowledge, skills and/or the abilities that are necessary to perform in today's workplace. Older in the sense that their average age is probably higher than that of the typical returnee to college or continuing education. However, whether the age perception is accurate or not, it is very safe to say that you will be working with a population that spans a wide age range.

Motivation and Barriers to Learning

Many studies have addressed the questions of motivation to learn and barriers to learning. Certain motivational areas rank high on all studies: to become better informed, to prepare for a new job or occupation, to improve skill for the current job, to spend free time in an enjoyable manner (Merriam and Caffarella, 1991:81-86; Cross, 1981:81-95; Long, 1983:96-109).

Cross (1981:98-108) cites three broad categories of barriers, situational, institutional, and dispositional, arrived at through a study conducted by Karp, Peterson and Roelfs. Situational barriers include cost of tuition, books and child care, not having enough time, home and job responsibilities. Institutional barriers encompass not wanting to go to school full time, the amount of time required to complete the program, the scheduling of classes and available information. The two major dispositional barriers take in feeling too old to begin and lack of confidence in abilities (Cross, 1981:99).

The dispositional barriers are the ones that you are going to have to overcome. Several participants will believe that they are "too old of a dog to be taught new tricks." Part of that belief may be true, but for the most part, many people involved in workplace literacy programs lack confidence in their ability to grasp the new materials. They have to feel in command of the learning situation, be comfortable with the pace at which the courses are taught, and comfortable with you as a presenter.

How Adults Learn

There have been a number of attempts to specify the principles of adult learning. A common thread runs through all the study findings. Brookfield, (1986:31) states:

> "Adults learn throughout their lives, with the negotiations of the transitional stages in the life-span being the immediate causes and motives for much of this learning. They exhibit diverse learning styles ... and learn in different ways, in different times, for different purposes. As a rule, however, they like their learning activities to be problem centered and to be meaningful to their life situation, and they want the learning outcomes to have some immediacy of application... Finally, adults exhibit a tendency towards self-directedness in their learning."

Smith, (1982:61-64) lists several cognitive factors that impact on learning (our preferred patterns of perceiving, remembering, thinking, and problem solving, complex structures that help us deal with the stimuli that bombard us. These factors include:

- o Field-dependence versus field-independence
- o Conceptualizing and categorizing
- o Reflectivity versus impulsivity
- o Sensory modalities

Related to the cognitive factors and to cognitive style is the concept of learning style, for which, according to Merriam and Caffarella (1991:176), there is no common definition of learning style, nor is there a unified body of research in this area. Smith (1982:24) states that "*learning style* can be defined as 'the individuals characteristic ways of processing information, feeling, and behaving in learning situations'."

The most prominent of the theories of adult learning is Knowles' theory of andragogy, the art and science of helping adults learn (Knowles, 1980:43). According to Knowles (1980:44-45), andragogy is premised on the assumptions

> "... that as individuals mature: 1) their self-concept moves from one of being a dependent personality toward being a self-directed human being; 2) they accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning; 3) their readiness to learn becomes oriented increasingly to the developmental tasks of their social roles; and 4) their time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly, their orientation toward learning shifts from one of subject-centeredness to one of performance-centeredness."

Merriam and Caffarella (1991:249) state that Knowles later added a fifth assumption that motivation to learn comes from internal factors rather than external ones.

Self-directed Learning and Learning How to Learn

Brookfield (1986:40) both cites Knowles' definition that learning is a process in which individuals take the initiative in designing learning experiences, diagnosing needs, locating resources, and evaluating learning; and Tough's definition that self-teaching is the process by which the learner assumes the responsibility for planning and directing the course of learning.

According to Smith (1986:16), people learn how to learn by taking control over their lives; developing personal learning plans; diagnosing strengths and weaknesses; overcoming personal blocks to learning; developing sound learning objectives; learning from life and everyday experiences; leading and participating in discussions and problem-solving sessions; and helping others to learn more effectively.

The workplace literacy program strives to empower participants to become self-directed learners and to give them the tools to learn how to learn. Your role in helping to achieve this is detailed in the next section.

The Environment of Adult Learning: Methods and Techniques for Teaching Adults

Conditions that promote adult learning

According to Smith (1982:47-49), there are six optimum conditions to stimulate adult learning. They are: "1. They feel the need to learn and have input into what, why, and how they will learn. 2. Learning's content and processes bear a perceived and meaningful relationship to past experience and experience is effectively utilized as a resource for learning. 3. What is to be learned relates optimally to the individual's developmental changes and life tasks. 4. The amount of autonomy exercised by the learner is congruent with that required by the mode or method utilized. 5. They learn in a climate that minimizes anxiety and encourages freedom to experiment. 6. Their learning styles are taken into account."

Environmental factors that impact on adult learning are both physical and emotional. Physical factors include light, heat, and noise. Emotional factors include the amount of affiliation with and emotional support from learners (Smith, 1982:69). In terms of the physical setting, Draves (1984:9) cautions that it is especially important to attend to the light, heat, size of your writing, and the modulation of your voice.

Approaches, Methods, Techniques, and Materials

As stated above, adults enter education for a variety of reasons, most of which fall into the areas of expanding knowledge, skills, and/or abilities. As such, the approaches, methods, techniques and materials are action and applications oriented rather than passive and theory-bound.

In terms of approaches or models, Knowles (1980:236-237) suggests that there are six types of activity units available: 1. general sessions; 2. small groups; 3. individual consultation; 4. reading; 5. recreation, worship, or meditation; and 6. preparatory activity.

There are a numerous techniques available to help adults learn. Knowles (1980:239) places them into seven groupings: 1. presentation techniques; 2. audi-

ence-participation techniques (for large meetings); 3. discussion techniques; 4. simulation techniques; 5. T-groups; 6. nonverbal exercises; and 7. skill-practice exercises, drill, coaching. The criteria for selecting the technique is based upon the desired behavioral outcome. You can and should be able to use all of these techniques, except for T-groups, in your courses.

The Role of the "Teacher" in the Education of Adults

Many adult educators avoid the label of *teacher* in favor of *facilitator* or *resource person* (Brookfield, 1986:123). They attempt to avoid the concept of the manager of the classroom and the prescribed curriculum that drives all of the learning activities and ignores learner input.

While there still is not a definitive profile on what constitutes exemplary adult educators, Brookfield (1986:133) cites Apps' 1981 study stating that they "are concerned about learners, are knowledgeable in their subject, relate theory to practice and their field to other fields, appear confident, are open to different approaches, present an authentic personality in the class, are willing to go beyond the class objectives, and are able to create a good atmosphere for learning."

Helping Adults Learn

According to Smith (1982:139-143), training is the key to helping adults learn. It is a process of change, getting the learner to challenge his/her belief systems, resolve the conflicts those challenges raise, and incorporate new behaviors (Smith, 1982:141-143). Training can be targeted at performance in self-directed learning, collaborative learning, or institutional learning (Smith, 1982:140).

One also helps adults learn by the way one interacts with students. Draves (1984:17) states that there are three requirements to be an adult educator: 1. love of your subject, 2. a desire to share it, and 3. basic competence in the subject.

Participants in the Workplace Literacy Program

The workplace literacy participant is a special type of adult learner. Program participants come from all backgrounds and from all levels of the organization. They may be general service personnel, responsible for housekeeping activities, they may be from the front-line supervisory ranks, or anywhere between. The common thread

that binds them together is that they do not have the knowledge, skills, or abilities to perform as well as they could in their present positions and/or they are not capable of performing as needed in the future.

They do not come from backgrounds of academic success. While they may have graduated from high school, and may have even attended college, they were never outstanding students. Many just barely got through the system. Their levels of proficiency in different skills areas vary. Some may be able to communicate extremely well using the spoken word, but have difficulty reading and writing. Verbal skills may be high but arithmetic skills may be poor. The permutations and combinations could exhaust a page.

Most have been away from formal education for many years. The concept of reentering a classroom is a frightening one to many. The older workers, those who have been on the job for many years, are especially apprehensive.

All they know about you is that you are "the teacher." They may be expecting behaviors stereotypical of the teachers they had in school 15, 20, or even 25 years ago. We want you to exhibit andragogical <u>not</u> pedagogical behaviors.

They need someone to help them and to empower them learn. They need someone who is driven to assist them in the process of learning what they need to learn, not someone who is driven just to meet a curriculum outline. They need a nurturing environment.

In the section that follows the program's philosophy becomes apparent - people learn best by doing. The active adult learner is the more successful one. This means more work for you because it's harder to facilitate than it is to lecture. It's harder to actively listen to you students than it is to talk "at" them. It's harder to frame open-ended questions than it is to ask a question requiring a one or two word answer. However, we know you will achieve better outcomes with the facilitative style, and know that you will be more pleased with the results.

SECTION II: MAKING EFFECTIVE PRESENTATIONS

The presenter serves a dual role by being a content expert and a facilitator of learning. It is the facilitator role that distinguishes the adult educator from the traditional classroom teacher. Adults learn best by taking an active part in the learning process, by being self-directed and learning those things that they need most in order to do their jobs effectively.

Therefore, the effective presenter: (1) makes his/her role clear at the beginning of the session; (2) ensures there is agreement on the purposes for the course; (3) keeps the group focused on the topic and the time schedule; (4) helps the group apply the concepts presented to specific examples; (5) calls attention to the group process; (6) lets the group take care of its own interaction and solve its own problems; and (7) models good practice.

Clarifying the Role

"During this course we're going to use different types of learning activities including small- and large-group discussion, role plays, case studies, panel discussions, etc. My role is to provide you with the basic concepts and to help you apply these concepts through your participation in different activities."

"I will be your resource, but you will learn to use the material through a variety of activities that you will work on as a group."

Ensures Agreement on Purposes for the Course

"When you enrolled in this course, there were some things you felt you wanted to learn. What are they?"

"What did you expect to learn in this class."

"What are some things that you have to learn in this class to help you do your job better?"

Keeps Focused on the Topic and Time Schedule

"That's a good point, Joan, but it's not exactly on the topic we're discussing. Please make a note of it as we'll be discussing that, in detail, later."

"You seem to be very interested in this point. However, there is something else we must cover, but I'll try to leave some time for us to get back to this point."

Helps the Group Apply the Concepts

"Here is a situation that happens at work. ... How would you apply the seven-step problem solving process to change the situation?"

"How can you use the hand-held calculator to check on the quality of products coming off of the assembly line?"

Calls Attention to the Group Process

"There seems to be a lot of side conversations. Is there something that needs clarification?"

"You're really working together like the teams we've been discussing."

Lets the Group Take Care of Itself

This is where you can use a comment on the group process and provide time for discussion or give them a break. If there seems to be a problem, undercurrent, something or someone distracting the group, share you observation of the process with the group, and either ask if they want to discuss your observation or tell them to take a break so that they can discuss the issue without you being involved. Remember to always **trust the group**.

Models Good Practice

Walk your talk. If you're demonstrating a methodology, use that methodology. Don't arrive at a point through a shortcut that the students could not master or could only master with great difficulty.

Don't ever say, "This is the way the book says to do it, but I never do it like that." Rather say, "This is the recommended way of doing this. After a lot of practice, you may be able to use an alternative method that could save some time. Here is one such alternative."

The Presentation

The presentation, whether it is a single session or a multi-week course, is a process containing several elements. They are: (1) opening the session; (2) starting discussions; (3) sustaining and guiding discussions; and (4) ensuring follow-up.

Opening the Session

Opening the session is critical to the success of the program. If this is the first session of the course, this is the time that you set the tone of active involvement and a sharing of responsibilities for the learning activities. If this is the opening of a session beyond the first one, it is a time to reaffirm the process and reintroduce the members to each other.

Icebreakers

Some trainers believe that sessions should be opened with an icebreaker, exercises that are designed to stimulate interaction among participants from the outset. They have to be used with caution, especially where the communication skills of the people involved are in question. A good rule to follow is to keep the exercise short and simple. Your icebreaker will be more powerful if you can relate it to the session. See the appendix for examples of icebreakers.

Introductions

The first time the group meets, introduce yourself to the group and ask the members to introduce themselves. Model the information you want to receive (eg: who you are, what you do/have done, how/when you got involved in this program).

"I'm Walt Meyer. I am currently serving as associate director/member training with the New Jersey School Boards Association. Prior to that I worked for Mercer County Community College as director of the Center for Training and Development. I became involved in workplace skills training in 1991 when the college received a grant to develop a program to help workers improve a variety of skills that would enable them to do their jobs better today and in the future."

Make sure that immediately before or after the introductions, participants complete a name tent. The will enable both you an the participants to address each

other on a first-name basis. Encourage participants to have the name tent with them for every session.

For meetings beyond the first session, you could have the participants just state their names and tell something else about themselves or, if the group seems to be well acquainted, you can skip this step. Remember that the purpose of the introductions is to spur interaction.

Objectives and Expectations

This is the time to share your course learning objectives and to find out what they expected to learn. It is a judgement on your part as to which should come first, and the decision may vary by program. Regardless, there are some "shoulds" associated with this part of the process.

Your objectives should be listed on a flip chart, overhead transparency, or a handout. Give the participants an opportunity to review the objectives and then review each one. **Do not** read them to the participants -- summarize them.

Then ask for their expectations or objectives. You could say something like, "When you chose to take this course, there were certain things you wanted to learn. What were some of those things?"

Remember, give them time to respond. You can tolerate the silence longer than they can! As they state their expectations, write them down on a flip chart. Post each chart as you fill it up. When they have exhausted their expectations, review the charts and state whether the item will be covered, won't be covered because of the nature of the course, or an item not included currently in the course, but one which you will try to cover before the course is concluded. Try to have the flip charts posted at each session, and check off their expectations as they are addressed. Always have them at the final session.

Starting Discussions

Questions

There are several ways to start discussions. Questioning can be very effective. Particularly in opening discussions, avoid questions that can be answered with a "yes", "no", or one-word response. That can be accomplished by asking "overhead" or

"open-ended" questions which are targeted at the whole group, or by asking directed questions of a specific individual who you know can respond. Additional examples of open-ended questions are provided in the appendix.

Open-ended Questions

"What are some of the problems people encounter when they try to change the way in which their organization does things?"

"Describe some of the ways you could use the pocket calculator on your job."

Directed Questions

"John, at the last session, you raised the issue of words that sound alike but are spelled differently. What did you want to discuss?"

"Sally, how many units does your assembly line produce each hour? What are the most units it can produce and the fewest?"

Whether open-ended or directed, there is the assumption that there is an answer. As with asking for expectations, remember, give them time to respond. You can tolerate the silence longer than they can!

Other Starter Techniques

Tie the content of the session into previous discussions, occurrences in the group, or outside events. Make a series of general statements that show the participants where you are headed. Don't stretch for an example, there are plenty out there. These references could be followed by open or directed questions.

"The other day we talked about feedback as a way of helping someone understand how his or her behavior affects another person. Today we're going to focus on decision making and we'll see ways the feedback process can help us make better decisions and solve problems more effectively."

"Immediately after the _____ convention, the polls showed a rise in popularity of that party's candidate. This has many implications for the discussion we're going to have today on _____ ."

Another starter is to use case histories and examples that relate to the topic under consideration.

"A researcher at the 3M company accidently developed a low-adhesion, long-lasting glue. 3M's policy was to allow employees to use their imagination and creativity to develop new ideas and products. This researcher developed what has become known as the "Post-It Note. Today we're going to look at problem solving and will see how important creative thinking is to getting good results."

"The Stevens family has an annual take-home income of $40,000. They spend the 30% for housing, 35% on food, 20% on clothing, and 5% on other expenses. This leaves them with $4,000 to spend or save. Today we're going to focus on percentages, how to calculate them and what they mean.

Sustaining and Guiding Discussions

Once the discussion is started, it is the presenter's responsibility to ensure that it continues in a productive direction. As adults have a need to be self-directed, allow them to take control of the discussion. Minimize dependence on yourself. Guide the discussion back only when it strays too far from the topic.

Through using active listening skills, paying particular attention to non-verbal communication cues, you can gauge the level of understanding, encourage participation, and make necessary adjustments. You want to be an observer and commentator on process, not just a dispenser of content.

Some specific ways of sustaining and guiding discussions are:

1. Ask both open-ended and directed questions.

"Describe your reactions when someone on the other end of the telephone did not listen to you or treat you courteously."

"Alice, you used the term 'emotional' when describing a person's reaction to being sent the wrong materials. What did you mean by that?"

2. Reinforce useful comments, without "grading" responses.

There is a danger in using value-laden words (excellent, very good, outstanding) to reinforce useful comments. If you fail to praise a comment, the participant might thing you didn't like the comment or think that it was useful. However, you can reinforce participants' comments with statements such as:

"Bill raises a point that we should look at further. How do you feel about his idea that ..."

"Louise thinks that good customer service means never letting the telephone ring more than three times before answering it. What do you think of a company when it the telephone rings and rings before your call is answered?"

3. Referring questions/comments back to the group.

In the examples above, and throughout this handbook, you will notice that questions and comments are referred back to the group for elaboration and further discussion. This device sustains and guides discussions and also send the message to the participants that they are responsible for their learning. It reduces the dependency on the presenter, tells them that you value their experience and their input, and reduces the need for you to provide all the answers.

4. Tabling extraneous issues.

Tabling issues that are not on the point of the discussion requires tact. You do not want to have a participant or the group shut down because an issue was raised that was off the topic. Group members should not feel diminished. Try some of these approaches.

"That's an interesting point, but it's also a new issue. I'll make a note of it and we'll come back to it later."

"That's part of a subject we'll discuss later on. Please remind me of your point when we discuss..."

5. Setting aside points with which you disagree.

As with tabling extraneous issues, setting aside points with which you disagree can be equally difficult. Again, you don't want to limit participants' risk-taking and creativity, nor do you want to run the risk of turning an individual or the group off. You also want to minimize the dependence on you as the authority.

You have several options. As described above, you could turn the process back to the group.

"How do you feel about the point that Paul just raised?"

The risk you run is that some people may agree with Paul, causing the discussion to turn into an undesirable direction.

You could allow the discussion to continue and state, "Here is a point on which we disagree. Let's agree to disagree and come back to a final resolution later."

You may eventually have to rely on an authority (such as a textbook) and say, "this is the process that we are going to follow for now. We can discuss other ways of handling this later on."

6. Let them see what they say.

As you ask for and receive input from the participants, record their responses on the flip chart, board, or overhead transparency. Flip charts work best as they can be posted and kept in view. Write clearly.

Ensuring Follow-up

Your final responsibility is to ensure that there is proper follow-up to the session. That could be in the form of a homework assignment to reinforce the current session material or to prepare for what is coming next. Follow-up is not always necessary, but when it is, your responsibility is to ensure that the communication is understood by all the participants. It is best to hand out any follow up assignment and to review it orally with the group. Don't rely on the participants understanding the written or spoken word. Check for understanding after having them read it and discuss it.

Taking Measures to Avoid Problems

Anyone who has ever gotten up before a group knows that things can go wrong. Problems can arise and oftentimes they are beyond the presenter's control. Therefore, you should do whatever you can to ensure that you will not be the cause of the problem.

Don't Play a Role to Satisfy Your Ego Needs

Do not play the expert, the master teacher. Your role is to help the participants develop skills that can be transferred to the job. Don't overload them with theory. Show them how to apply the theory. Don't be the sole expert. Ask for input from the group when someone asks a question or makes a statement that warrants further exploration.

Don't Use Jargon (without Explaining the Terms)

All fields have a language of their own, their jargon. Avoid using your field's jargon, unless you explain the word or acronym and check to ensure understanding. You could say, "The computer you will be using has two meg of RAM, a 40 meg hard drive, and operates in a Windows or a DOS environment." However, unless you explain *meg*, *RAM*, *hard drive*, *Windows*, *DOS*, and *environment*, you might as well be speaking in a foreign language.

Check on the Group's Expectations

If you know what the group expects to learn, you can gear your presentations to meet their learning needs. Also, if you cannot possibly meet one or more of their expectations, tell them what you can do. This is why it is so important to ask for their expectations right up front. Your group will be more responsive and cooperative if they know what they can expect from you course.

Constantly Check on the Group's Reality

Pay attention to the group's reactions. If you sense that there is something operating, ask the group what they are concerned about and/or what they would like to do.

"I feel that there is something that is making you uncomfortable. Please tell me what you're thinking/feeling right now."

Control Your Emotions

Do not take sides during a discussion, especially when it is emotionally charged. Do not show your frustration with the group not being able to grasp a point or apply a concept. The fault may be with the presentation, not with the reception.

Check Your Equipment

Equipment will refuse to work at the time that you need it the most. Arrive early and check your equipment. **Do not** depend on someone from the client company to do it. Remember, everything you use is equipment, including markers, flip charts, overhead transparencies and projectors, and video components. If your equipment does fail, you should be ready with a back-up plan.

Handling Problems

Regardless of how hard you try to prevent them from happening, problems will occur. Below is a list of some of the more common problems with some suggestions on how to handle them. Given the opportunity, groups can almost always solve their own problems. The basic rule in handling all such problems is to **trust the group**.

Questions You Can't Answer

Refer them back to the group or to the person asking them. If you do not get help, promise to find the answer and report back at the next session.

Questions You Can Answer

Give the group a chance to find the answers on their own first. When you know the answer and no one else does, answer the question.

Everyone Talking at Once

Be silent and wait for attention. Use the room and your body. Position yourself in the center of the group so that everyone see you waiting. As a last resort, ask for the group's attention and suggest that one person talk at a time.

People Who Do Not Participate

Try to assess why. Don't force anyone to participate. Ask a direct question of the non-participant, based on something you learned during the introductions, if appropriate. Take a break and speak to the individual privately. Ask the group to submit written responses to an exercise or a question, read the responses, and ask for amplification.

Side Conversations

Se if other members in the group will ask them to stop. Tolerate them until they disturb others or yourself. Position yourself near the offenders so that all eyes are on them as you speak over them. Ask them if they have a comment that they would like to share with the group.

Arguing

Maintain your emotional control. Refer the persons comments back to the group. If the individual won't give up, ask him/her if you can agree to disagree and move on with the session.

Wrong Answers

Maintain the dignity of the person. Ask other participants what they think. If you do not get the correct answer, provide it.

Appendix

Icebreakers

Autograph Collector

Give each member a small pad or some index cards and a pencil. Have them mill around and introduce themselves to one another. After they shake hands and and give their names, they sign each other's cards and then move on to another introduction.

Process the exercise by asking them how they felt when they had to apporach other people for an introduction and an autograph.

Formal Introductions

With the group seated around the table, pair people off. Tell them they have five minutes to talk to each other and that during that time they have to learn three things about the other person. Tell them that they will have to introduce their partner to the group.

Scavenger Hunt

Prepare a list of hobbies (collects coins, builds model airplanes, bowls), facts about growing up (parents owned a farm, was born outside of New Jersey, attended summer camp), vacation preferences (like warm weather places, snow skis, goes to amusement parks). Have participants mill around, introduce themselves, and find out which fact best describes them. Have each one introduce someone else based on a fact that he/she found during the introductions.

Complete the Sentence

Prepare a list of incomplete sentences concerning their feelings/thoughts about the course or course material (keep them simple). Ask the participants to complete as many of them as they can. Go around the table asking each person to tell something that he/she put down on the paper.

Words of Caution: Remember that icebreakers are meant to get group participants talking to one another. In adult education courses in general, and specifically in the workplace literacy causes, your population may not be well disposed to disclosing much about themselves to another. Keep your icebreakers on neutral topics. Also, keep the interaction and the reporting to the group brief. Think of 10 minutes as a maximum for the interaction and try not to require more than three sentences of a person reporting to the group.

Open-Ended Questions

Asking open-ended questions is an excellent device for opening and sustaining discussions. Open-ended questions require that people formulate and give an answer rather than nodding their heads, or verifying with a verbal "yes" or "no," or responding with a straight factual answer as they would to a question in a game of trivia.

Open-ended questions allow you to ask how they would apply the course material to their work situations. This gives you a good check on understanding.

Finally, open-ended questions send a valuable message that you care how the participants think. You value their input. You value their opinions. You value their experience.

Below are examples of how to word open-ended questions. Remember, if it can be answered in one or two words, it's a closed-ended question in disguise. Some open-ended questions do not even need question marks at the end!

- What is an open-ended question?
- Give me examples of open-ended questions.
- What are some of the advantages of open-ended questions?
- Why might a teacher use open-ended questions in class?
- What value is there to open-ended questioning?
- When is it appropriate to ask open-ended questions?
- What are the dangers of asking only open-ended questions?
- List the dangers of asking only closed-ended questions.

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About the Author

Walter A. Meyer holds the position of Associate Director/Member Training for the New Jersey School Boards Association. He is responsible for implementing a variety of workshops for school board members, coordinating the content of the annual workshop, developing the new Board Member Academy.

Prior to that, he was director of Mercer County Community College's Center for Training and Development. His responsibilities included working with business, industry, government organizations, and professional associations to develop and implement training programs tailored to meet their organizational needs. He also developed the concept and co-authored the college's two National Workplace Literacy grants.

Meyer holds a Bachelor of Arts degree in Economics from The City College of New York and a Master of Arts degree in Counseling Psychology from New York University. He is working on a doctorate in Adult Education through Nova University.

He has taught courses in psychology and management, and has consulted and conducted training programs for such organizations as the American Institute of Banking, Educational Testing Service, GE Astro Space Division, Helene Fuld Medical Center, New Jersey Department of the Treasury, U.S. Department of Education, and the U.S. Postal Service.

Sample IEP

Workplace Skills Program
Individual Education Plan

Name_____

Date_____

Current Job:_____

Length of time on this job _____

Previous Job:_____

Last grade of formal education?_____

Plans for different job?_____
(What would you like to do?)

What educational requirements are necessary for this new position?_____

_____

What education requirements do you need for your current job that you would like to get from the Skills for Tomorrow Program? _____

_____

_____

Courses available from Skills for Tomorrow-Now program:

Reading:

Do you need to learn to:	Yes	No
♦ Develop techniques to read and spell basic words	___	___
♦ Develop techniques to read manuals more acurately and quickly	___	___
♦ Learn to comprehend vocabulary in context in order to read job materials	___	___
♦ Develop test taking skills to pass certification tests	___	___
♦ Expand comprehension skills to interpret various kinds of information found in job related reading material	___	___
♦ Develop skills for interpreting graphs and charts	___	___

Math:

Do you need to:	Yes	No
Math 1 and 2		
♦ Refine and review basic skills such as adding, subtracting, multiplying and dividing of fractions and decimals	___	___
♦ Learn to use the calculator	___	___
♦ Solve word problems	___	___
♦		
Math 3 and 4		
♦ Compute ratios, proportion and percents	___	___
♦ Comprehend the fundamentals of statistics and probablity	___	___
♦ Use scientific notation on your job	___	___
♦ Comprehend the fundamentals of geometry and elementary algebra	___	___

Science

	Yes	No
Do you need a survey course of physical science to be able to apply scientific principles to your work at PPPL?	___	___
Do you need to understand these topics:		
♦ Measurement and Motion	___	___
♦ Gravity	___	___
♦ Astronomy	___	___
♦ Electricity	___	___
♦ Atomic structure	___	___

Science - Continued

- Chemical bonding ___ ___
- Nuclear reaction ___ ___
- Thermodynamics ___ ___
- Basic gas laws ___ ___

Writing

Do you need to:	Yes	No
♦ Develop skills for writing and editing memos, letters and reports	___	___
♦ Develop strategies to learn grammar and spelling	___	___

Problem Solving

Do you need:	Yes	No
♦ Tips and strategies for solving problems	___	___

Stress Management

Do you need:	Yes	No
♦ Tips and examples to deal with the daily stresses of work and home life	___	___

What is your objective for taking MCCC course(s)?

_____

_____

Were these objectives met?_____

_____

_____

Other Comments:

Recommendations:

Courses to Take	Timeframe
1._____	_____
2._____	_____
3._____	_____
4._____	_____

Other action:

Orientation

SKILLS FOR TOMORROW NOW

WE ARE HERE FOR YOU!!!!

- An opportunity for training
- Free of charge
- Right here at .
- On Company time
- Choice of many different courses

WHO CAN COME????

The first semester of courses will be for Quality Operators

Your co-workers **John Companick**, **Luis Matos**, **Joyce Montevino**, **Bob Pettway**,**Arlene Wharton** and **Peggy Wingo** spent many hours with us in the early planning stages.

As time goes on courses will be developed for other groups of employees, also.

Training For You!!!!

- An opportunity for training

- Free of charge

- Right here at

- On Company time

- Choice of many different courses

WHAT WILL IT BE LIKE????

* Friendly, helpful teachers

* Most classes will meet twice a week, 2 hours each time

* No grades

* Homework is optional

WHO WINS?

* wins with more skilled employees

* You win by refreshing and updating your skills

* Your family and community win with your new knowledge

WHAT COURSES SHOULD YOU CHOOSE????

* Come plan your individual courses with our counselor

Sign up to meet with Ave to discuss what YOU want to take.

SKILLS FOR TOMORROW NOW

WE ARE HERE FOR YOU!!!!

- An opportunity for training
- Free of charge
- Right here at (CO. NAME)
- On Company time
- Choice of many different courses

TOO GOOD TO BE TRUE????

The Federal Government gave $$$ to Mercer County Community College for the next 15 months to train employees to refresh and update their skills.

WHO CAN COME????

The first semester of courses will be for the Quality Operators. Your co-workers **Robert Blair, Mary Ann Gallagher, Shirley Holmes, Joseph Loncosky, Pat Mazotas, Vicki Skorut, Fran Venturino and Forrest Willis** spent many hours with us in the early planning stages. As time goes on courses will be developed for other groups of employees, also.

WHAT ARE THE PRESIDENTIAL CANDIDATES AND GOV. FLORIO SAYING ABOUT PROGRAMS LIKE THIS?

THE AMERICAN WORKER MUST STAY UPDATED, SKILLED AND COMPETITIVE WITH FOREIGN MARKETS. THEY WILL MAKE THE $$$ AVAILABLE FOR PROGRAMS LIKE THIS. HERE IS YOUR CHANCE TO:

- Refresh and update your skills in communications and math
- Increase your current job knowledge
- Take courses to prepare you for the ever-changing technology
- Be ready to be "job smart" as machines get smarter

WHO WINS?

- (CO.) wins with more skilled employees
- You win by refreshing and updating your skills
- Your family and community win with your new knowledge

WHAT WILL IT BE LIKE????

Friendly, helpful teachers
Most classes will meet twice a week, 2 hours each time
No grades
Homework is optional
No "reporting back" to supervisors on employees
Attendance records will be given to supervisors

Interested in Joining?

Placement Tests :

First Shift:

Tuesday, August 6
3-5 pm
Corsica Room

Second Shift:

Wednesday, August 7
1-3 pm
Corsica Room

SEE YOU THERE!!!!

MERCER COUNTY COMMUNITY COLLEGE
ST. FRANCIS MEDICAL CENTER
BE A PART OF THE PARTNERSHIP
GENERAL MOTORS INLAND FISHER GUIDE PLANT
PRINCETON PLASMA PHYSICS LABORATORY

SKILLS • FOR • TOMORROW

New Opportunities in the Workplace

Fall Session

When: September 16-October 21, 1991

Time: 7:00 AM - 3:00 PM

Place: Corsica Room

What: Classes in:

- Refreshing the basic skills of:
  - Reading
  - Writing
  - Math
  - Science

- New this session:
  - Handling Stress
  - Budgeting Time

GM-UAW-MCCC SUMMER COURSES

COURSE DATES: June 10 - July 12, 1991

These courses will be held again in the fall, winter, spring and summer

Location: General Motors

Time: 7:00 am - 3:00 pm daily

Eligibility: Quality Operators

Purpose: Refresh your present skills and learn new ones
To prepare for the changing technology of the next decade

Courses:

All courses are designed to relate to jobs at the General Motors Inland Fisher Guide Plant.

Reading for Understanding and Enjoyment
Advanced Reading for Understanding and Enjoyment

Math Basics
A basic math refresher, including using a calculator
Intermediate Math
A more in-depth look into the world of numbers

Business Writing
Learn to write what you really want to say, quickly and easily.

Science - How DO These Machines Run?

Sample Publicity

At 31,

Thomas Edison Invented the Lightbulb.

At 48,

David Mullany created the Wiffle Ball.

At 53,

Ray Kroc opened his first McDonald's.

At 71,

Jeanne F. Cave was elected mayor of Norwalk, Connecticut.

At 77,

Grandma Moses started painting.

At 87,

Rose Brasch received her bachelors degree from college.

As long as you dream, it's never too late.

JOIN

SKILLS FOR TOMORROW

Congratulations

On a Job

Well Done!

Certificate of Participation

Rhein Chemie Corporation, Trenton, NJ
and
Mercer County Community College

This is to Certify that

Has Participated in the Following Program

Skills For Tomorrow

and is Hereby Awarded this Certificate

September 1, 1992
Date

_____
Signed

Keeping the Promise
25th 1966•1991 ANNIVERSARY

Workplace Literacy
...Not a Luxury, but an Investment

The Need:

Today, and into the next decade your employees will need to:

- Spend at least 1 1/2 - 2 hours a day reading
  ...forms, charts, manuals, computer data

-Write an average of 8% during the workday
  ...record keeping, specific terms, memos, reports

- Use math on the job in various ways many times a day
  ...read and write numbers in a series, compute, measure, estimate, solve problems

-Communicate with other employees and management constantly
  ...listen to and follow directions, share information with others, communicate in English if needed

The Solution:

On-site, customized, job-focused courses in:

Reading and interpreting job material
Writing skills for entry level to mid-level employees
Math for the industry (plumbers, line workers, etc.)
Applied Science for specific industries
English as a Second Language

For more information, contact:

Elaine S. Weinberg
Director, Workplace Skills
Mercer County Community College
1200 Old Trenton Road
Trenton, NJ 08540
(609) 586-4800 ext. 612

BEST COPY AVAILABLE

Economy

...ued from C10

...om the third quarter. Even though that is an ...provement on last month's estimate of a $9 ...llion drop, consumer spending declined by ...o-tenths of 1 percent last year.

Yesterday's report said that net exports — ...e difference between exports and imports — rose by $13.5 billion in the fourth quarter, down from the $22.8 billion previously reported. The report said that exports in the fourth quarter rose by $17 billion, a downward revision from the $19.9 billion reported last month.

> 'The good news is that the recovery is trying to get off the ground. The bad news is that in the near term, it is unlikely to get as high or go as fast as previous postwar recoveries.'
>
> — John M. Albertine, forecaster

Over the past year, exports have been one of the few bright spots in the nation's economy. "In the fourth quarter, export growth successfully bridged over the renewed weakness in domestic activity," said Gordon Richards, an ...omist with the National Association of ...facturers.

According to the report, exports rose 13.1 percent in the fourth quarter, while imports rose 2.5 percent. Purchases of durable goods fell 6 percent, while purchases of nondurable goods fell 3.2 percent.

"The good news is that the recovery is trying to get off the ground," said John M. Albertine, who runs a Washington-based economics forecasting firm. "The bad news is that in the near term, it is unlikely to get as high or go as fast as previous postwar recoveries."

Staff photo by Marc Bellagamba

BUILDING SKILLS — Terry Marquis, plant manager of the General Motors Inland Fisher Guide Plant in Ewing, speaks at a graduation ceremony yesterday for 19 workers who completed refresher courses to improve workplace skills and productivity. The class participated in a program developed by Mercer County Community College under a National Workplace Literacy grant.

Stock prices flat; Dow drops 1.78 points

The New York Times

NEW YORK — Stock prices were flat yesterday in choppy trading. Concluding a roller-coaster week that included two new records and two retreats, the Dow Jones industrial average ended at 3,267.67, off 1.78 points for the day.

Dennis Jarrett, chief market analyst with Kidder, Peabody & Co., said he noted some profit taking by investors and a little program trading late in the afternoon.

"This weakness in equities should ... last, given the strength develop... in the bond market," he said. The firm bond market had helped to underpin stocks for most of the trading session.

Auto stocks advanced strongly after Merrill Lynch gave the automaking group a positive recommendation. Chrysler rose ¾, to 17; Ford Motor rose 1, to 36 3/4, and General Motors gained 1¼, to 37⅜.

The upward revision of the United States' fourth-quarter gross domestic product, another indicator of the economy's outlook, did not seem to have a great impact on the market, Jarrett noted.

Volume on the New York Stock Exchange was on the lighter side of the average trading day, with 221 million shares changing hands, up from 215.1 million on Thursday. The Big Board index slipped 0.54 point, to 228.21, as the number of losing stocks moved slightly ahead of gainers by 895 to 825.

The Standard & Poor's index of 500 stocks fell 1.16 points, to 412.70, while the American Stock Exchange index finished unchanged at 416.09. Trading on NASDAQ issues moved the composite down 0.48 point, to 633.47.

Blue-chip issues rose in the morning, helped by futures-linked buying, gains in the bond market and what analysts said was end-of-month portfolio window dressing, when money managers have a tendency to make trades that embellish portfolios.

Stock	Bid	Ask	Stock	Bid	Ask	Stock	Bid	Ask
Fceltr	1 1-16	1⅛	Lidak	17⅛	1 15-16	RntWck	1⅛	1⅜
				14½	17	Rentch	5¼	5½

ST. FRANCIS MEDICAL CENTER

FOCUS

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Skills For Tomorrow—*Employees were recently honored for their participation in the Skills For Tomorrow program. At the reception: (front, l to r) Mercer County Community College instructor Carol Lewandowski and program participants Nadette Francois, Jester Lorteau and Manning Edwards. Back row, Ronnie Alzheimer, Director of Educational Resources, and Elaine Weinberg, MCCC Program Coordinator. See story and additional photo on page 2.*

Expanded Services, New Facilities Highlight 1991 Growth

In 1991 St. Francis Medical Center expanded on a wide range of services and facilities to meet the health care needs of its service area. Expanded parking for patients and visitors, the renovation of the Medical Center's Pediatrics Unit and Pre-Admission Testing Suite, with on-site lab and X-Ray facilities were major highlights of facility improvements in 1991.

The Medical Center opened the area's first Regional Chest Pain Emergency Center in June 1991 to provide rapid diagnosis and treatment of individuals experiencing chest pain or other signals of heart attack. The Center is equipped with state-of-the-art heart monitors, a computerized electrocardiogram (EKG) management system for immediate studies and retrieval of previous studies and the capability to administer clot-dissolving drugs, such as t-PA. Through the St. Francis Heart Institute, staff has access to the most comprehensive cardiac services in Mercer County including cardiac catheterization and coronary angiography.

In 1991 computerization of the Laboratory and Radiology Department with the most advanced technologies ensures efficiency and accuracy of reports for physicians and patients. The Sunquest Computer system in the St.

(continued on page 3)

Living Wills Subject of New Legislation Effecting Hospitals

In accordance with new state and federal laws, St. Francis Medical Center, along with all other healthcare institutions, must ask on admission for any medical reason, not only life-threatening illnesses, whether the patient has executed a living will or durable power of attorney.

A living will, also referred to as advance directives, specifies how and by whom decisions should be made if a person becomes incapacitated and is unable to make decisions regarding care.

The Patient Self Determination Act, which was passed into law Dec. 1, and the New Jersey Advance Directives for Health Care Act, which became effective Jan. 7, effects all hospitals, nursing homes, hospices and managed care programs that are Medicare and Medicaid providers.

In December, more than 150 people attended a seminar sponsored by the Senior Choice program, to discuss the importance of the two laws.

If a patient has made advance directives, the Medical Center reviews it for compliance with the legislation as well as the hospital's policy and procedures and makes note of it on the patient's medical records.

Patients are not required to have advance directives, however, healthcare institutions must provide information about their policies and procedures concerning them and the right of the patient to accept, reject or withdraw medical treatment.

(continued on page 5)

Inside

- A Job Well Done
  Patient Services Employee of the Quarter, page 6.
- T'was the Season
  Highlights of Christmas '91, page 7.
- Heartbeats
  CPR Training Center honored, page 5.
- Win Tickets
  Free raffle for Spring Gala, page 4.

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INTRODUCING...

SKILLS FOR TOMORROW:

New Opportunities in the Workplace

Are you tired of putting out fires?

Are you tired of solving the same problems over & over?

Are you ready to learn how to confidently approach problems?

In the Chinese language, the words problem and opportunity can be used to describe the same situation. When a problem needs to be solved, rather than viewing the problem as a barrier, it should be seen as an opportunity to display creativity.

We are pleased to announce a creative problem solving workshop will be offered here at SFMC. This workshop will give you a step-by-step method for problem solving and making decisions. Please join us for this exciting workshop.

DATE	TIME	PLACE
June 4	10:00AM-12Noon	CR3, Bldg B
June 6	10:00AM-12Noon	CR3, Bldg B
June 11	10:00AM-12Noon	CR3, Bldg B

To register, please call Education Resources at x5065. Space is limited so please call as soon as possible.

.6 CEU's available

MERCER COUNTY COMMUNITY COLLEGE
ST. FRANCIS MEDICAL CENTER
BE A PART OF THE PARTNERSHIP
GENERAL MOTORS INLAND-FISHER GUIDE PLANT
PRINCETON PLASMA PHYSICS LABORATORY

A partnership between Mercer County Community College, St. Francis Medical Center, General Motors Inland-Guide Division and Princeton Plasma Physics Laboratory.

Skills for Tomorrow:

New Opportunities in the Workplace

Are you a person who:

- knows how important you are?
- wants to grow?
- wants to expand your horizons?

ST. FRANCIS Medical Center

Skills for Tomorrow:

New Opportunities in the Workplace

Benefits:

- Prepare for your future
- Develop new work skills
- Programs given here at SFMC
- Variety of programs available
- Counseling available
- Learn during your working hours

As you are aware, Progress Through Growth is one of our five operational values. **Skills for Tomorrow** was developed to allow employees to develop both personally and professionally. Changing technology in the workplace may require updating skills or acquiring new skills.

The Medical Center will be working with Mercer County Community College on this project. With their assistance, we will be able to develop programs specific for St. Francis Medical Center and your needs.

Ronnie Alzheimer, Education Resources, will be sending additional information on orientation sessions and course offerings. If you have any questions, please call Ronnie at **Ext. 5067**.

Invitation

Skills for Tomorrow....

What is it?

What type of programs are being offered?

How will it benefit me?

You have received a general brochure about our Skills for Tomorrow: New Opportunities in The Workplace program. By now you are probably asking yourself the questions above.

I would like to invite you to a short orientation session conducted by Elaine Weinberg from Mercer County Community College. She will fully explain the Skills for Tomorrow program and answer all your questions.

DATE : June 25, 1991

TIME : 9:30AM (right before the Management Committee meeting)

PLACE: Crean Hall Auditorium

Please join us and learn more about this grant

EMPLOYEE SPOTLIGHT (continued):

DANIEL DENT

THANK YOU FOR CATCHING THE OFF-WEIGHT RUBBER FOR A(ZMAM)D-666P AND FOR NOTICING THE WRONG HAZARD LABELS BEING PUT ON THE T(ERT-54)D-70. GREAT EYES.

NEIL GALE AND LANNIE SILVER

YOU BOTH DID A FABULOUS JOB WITH AN OUTPUT OF 36 BATCHES OF VC-60P. GREAT PERFORMANCE.

KURT JOHANSSON, DAVID FERRARA, AND FRANK FERRARA

WELCOME ABOARD! THESE THREE MEN WILL BE JOINING US NEXT WEEK AS SUMMER TEMPORARIES. KURT WILL WORK AT JANE STREET. DAVID AND FRANK WILL WORK 1ST SHIFT IN PLANT 1. GOOD LUCK TO ALL OF YOU.

FREDERICK WEISSMAN

WELCOME TO RHEIN CHEMIE! FRED WAS HIRED ON JUNE 8TH AS A BUYER IN OUR PURCHASING DEPARTMENT. HE WILL REPORT TO DAN GOWATY. GOOD LUCK IN YOUR NEW JOB.

PLANT NEWS

On Saturday, June 6th there was an excellent effort by all shifts on the clean-up of the #21 area and the mill room floors. Good job.

Remember to report all accidents to your leadman no matter how major or minor the incident (bruise or scape).

REMINDER:

IF YOU ARE COMPOUNDING BEHIND THE MILLS OR PACKING WITH TALC PRODUCTS, REMEMBER TO WEAR YOUR PROTECTIVE EQUIPMENT (FACE MASKS OR WHITECAPS).

The binder shelves are being cluttered with other binders that do not belong there. This is everyone's responsibility. Please make sure the NAME OF THE BINDER as well as the DATE and WEIGHT goes on the container.

SKILLS FOR TOMORROW - NOW!

Since it was first announced, the 5 people chosen to develop the skills required for plant operations have completed their task with help from Mercer County Community College. Their input will be utilized to develop a training program to improve the skill levels of plant people. As a follow-up to that program development, MCCC will be visiting the plant today.

REMEMBER, THOSE INTERESTED IN OBTAINING THEIR HIGH SCHOOL EQUIVALENCY CERTIFICATE SHOULD CONTACT DOT HARLEY AT EXTENSION #520.

PPPL News Alert

Blood Tests Offered

The Occupational Medicine Office will begin providing blood studies tests on Wednesday mornings between 8:30 and 9:30 a.m. beginning June 12th. A phlebotomist from Roche Laboratories will be onsite to draw the blood. Persons interested in having their blood tested must make an appointment and must have had a physical at the Laboratory in the last six months. Participants will be required to fast from 12:00 midnight until after the blood has been drawn. For more information and/or to make an appointment, call the Dispensary at extension 3200.

SKILLS • FOR • TOMORROW

New Opportunities in the Workplace

Be a part of the partnership between Mercer County Community College, General Motors Inland-Fisher Guide Plant, St. Francis Medical Center, and Princeton Plasma Physics Laboratory

MERCER COUNTY COMMUNITY COLLEGE
ST. FRANCIS MEDICAL CENTER
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PRINCETON PLASMA PHYSICS LABORATORY

- Prepare for your future in the workforce
- Develop new work skills or improve current ones
- Benefit from planning with college counselors
- Create an individual education plan from several courses offered
- Train at your worksite
- Learn during your working hours
- Receive Continuing Education Unit (CEU) credits

Summer Schedule

Problem Solving Techniques

Introduction to Physical Science

Introductory Math for the Workplace

Writing for Effective Communication

Reading for Improved Technical Comprehension

Classes meet from 11:00 a.m. to 1:00 p.m. once or twice each week.
For more information, call Bill Johnson on extension 2052.

More on Page 2

June.... Spotlight on Healthy Food

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	
3	4	5 "Watch that Price" on the Salad Bar	6	7	"Salad Savvy"
10	11 "Feather Your Own Nest"	12	13	14 Flag Day Operation Dessert Storm	"Grill Thrills"
17 Show Us A Picture of Your Dad & Get a Free Coffee or Soda	18	19	20 "A Midsummer Night's Dream" See Special Menu	21	"Deli Delights"
24 "Count the Calories" Contest Begins	25 "Beat the Clock"	26	27	28 "Count the Calories" Contest Winner Announced	"Entre En-Light-enment"

Cafeteria Menu for Week of June 10

Day	Soup	Entrees	Super Salad	Grill Thrills	Deli Delight	Breakfast
Monday	Corn Chowder	1) Chicken in White Wine Sauce $3.25 Garden Blend Rice & Veg. du jour 2) Baked Rigatoni Parmesan $2.95	Broccoli & Cauliflower Curry	Steak-filled Pita $2.50	Tuna & Cheese Hoagie $2.35	Two Eggs any style w/Sausage $2.10
Tuesday	Beef Vegetable Barley	1) Pierogies w/Fried Onions $2.95 Garlic Bread & Veg. du jour 2) Ham & Cheddar Omelet $2.85	Hot Peppered Beef	Chicken Jajitas $2.35	Turkey Salad w/Lettuce in Pita Bread $2.25	Homemade Pancakes w/Bacon $2.10
Wednesday	Puree of Split Pea w/Bacon	1) Cornish Hen w/Homestyle Gravy $3.35 Roasted Potatoes & Veg. du jour 2) Linguini & Meatballs $2.95	Oriental Rice	Mixed Seafood Grill $2.50	Roast Beef & Provolone Hero $2.50	Cheese & Bacon Omelet $2.10
Thursday	Homestyle Chicken Noodle	1) Tasty Sauerbraten $3.15 Mashed Potatoes & Veg. du jour 2) Wishbone Casserole $2.95	Potato & Chives	Grilled Chicken Breast w/Mustard $2.50	Egg Salad & Bacon on Croissant $2.65	Taylor Ham & Cheese on Hard Roll $1.70
Friday	Fresh Vegetable Bisque	1) Fish & Chips $3.25 Steak Fries & Veg. du jour 2) Spinach Canneloni Marinara $2.95	Italian Antipasto	Veggie Pocket $1.95	Italian Hoagie $2.60	French Toast & Ham $2.10

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NEW EDUCATION PROGRAM BUILDS WORKPLACE SKILLS; STARTS THIS MONTH AT PPPL

A new program to help employees build skills important to them in their jobs will begin next week at PPPL. The program, Skills For Tomorrow-Now! (New Opportunities in the Workplace) is funded in part by a grant from the U.S. Department of Education. The Laboratory, in partnership with Mercer County Community College and two other area employers, will offer a series of courses over the next 15 months aimed at strengthening workplace skills.

Courses offered by Mercer County Community College at each employers' work site will be different and will be tailored specificly toward the skills needed. The other partners in this experimental program are the Inland-Fisher Guide Plant of General Motors and St. Francis Medical Center The program is to be designed as a pilot which may be duplicated in other parts of the country.

The initial courses to be offered this summer at PPPL include mathematics, problem solving, effective writing, reading and understanding technical documents, and basic physical science. Most courses will be on a shared-time basis, much like courses sponsored by the Employee Development Program (EDP). Generally, classes will be two hours in length and will be scheduled at mid-day for employees convenience. There will be no cost to employees who sign up for courses.

Employees are encouraged to enroll in these courses by completing the Registration Form at the end of this memo. Participation will be limited to one course per employee each term. Those interested in more than one course should list courses on the Registration Form in order of their preference. Employees will be registered as their applications are received; however, consideration will be given for special circumstances.. Questions about the program should be directed to Bill Johnson on extension 2052.

SUMMER COURSES OFFERED AT PPPL

Problem Solving Techniques
Participants in this workshop will learn how to confidently approach problems with a step-by-step method of developing and choosing solutions. Exercises, presentations, and discussions will demonstrate the potential to manage demanding situations creatively and effectively.

Three, 2-hour classes. June 12, 19, and 26. 11:00 am to 1:00 pm
Classroom to be announced.

Introduction to Physical Science (Basic Science in the Lab-Including Scientific Notation)
Students will learn to apply basic principles and fundamentals of natural forces and structures as they relate to work at PPPL. Time will be spent investigating such topics as measurement and motion, gravity, astronomy, electricity and magnetism, atomic structure, nuclear interactions, and basic gas laws. No previous science education is required to attend this class.

One, two-hour class each Friday, June 14 to August 15, 11:00 am to 1:00 pm, Theory Conference Room

FOR IMMEDIATE RELEASE
June 6, 1990

Anthony R. DeMeo 609-243-2755
Carol A. Phillips 609-243-2754

PPPL Joins Others in Program to Enhance Employee Skills

Princeton, N.J. — The Princeton Plasma Physics Laboratory (PPPL), in partnership with Mercer County Community College (MCCC), the General Motors Inland Fisher Guide Division in Ewing, and St. Francis Medical Center in Trenton, is part of a pilot program to help an estimated 600 employees develop skills needed to meet changing technological requirements in the workplace. This large development program, Skills for Tomorrow—NOW (New Opportunities in the Workplace), is partially funded by a $272,000 grant from the U.S. Department of Education.

PPPL, General Motors, and St. Francis Medical Center applied jointly for the grant and will incur matching costs primarily in the form of salaries for students' time and required administrative support. MCCC will develop, conduct and monitor the courses, which will be offered to the employees at their workplace. MCCC personnel will also assist employees with personalized education plans and conduct evaluations of the program.

A major objective of the Skills for Tomorrow-NOW! Program is to create a training experience that can be duplicated by similar partnerships in other U.S. cities. Employees benefit directly from the training offered by such programs and employers benefit by having a more qualified workforce, by sharing in the training experience, and by savings realized in training costs.

"This is a basic workplace skills enhancement program. Because it is a pilot program to be duplicated in other cities, the course offerings must focus on the most needed basic skills," said William Johnson, Manager of Training and Development at PPPL.

—More—

Princeton Plasma Physics Laboratory
JAMES FORRESTAL RESEARCH CAMPUS P.O. BOX 451, PRINCETON, N.J. 08544

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Courses offered by Mercer County Community College at each employers' work site will be different and will be tailored specificly toward the skills needed. The other partners in this experimental program are the Inland-Fisher Guide Plant of General Motors and St. Francis Medical Center The program is to be designed as a pilot which may be duplicated in other parts of the country.

The initial courses to be offered this summer at PPPL include mathematics, problem solving, effective writing, reading and understanding technical documents, and basic physical science. Most courses will be on a shared-time basis, much like courses sponsored by the Employee Development Program (EDP). Generally, classes will be two hours in length and will be scheduled at mid-day for employees convenience. There will be no cost to employees who sign up for courses.

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One, two-hour class each Friday, June 14 to August 15, 11:00 am to 1:00 pm, Theory Conference Room

Interested in Joining?

Placement Tests :

First Shift:

Tuesday, August 6
3-5 pm
Corsica Room

Second Shift:

Wednesday, August 7
1-3 pm
Corsica Room

SEE YOU THERE!!!!

MERCER COUNTY COMMUNITY COLLEGE
ST. FRANCIS MEDICAL CENTER
BE A PART OF THE PARTNERSHIP
GENERAL MOTORS INLAND-FISHER GUIDE PLANT
PRINCETON PLASMA PHYSICS LABORATORY

SKILLS • FOR • TOMORROW

New Opportunities in the Workplace

Fall Session

When: September 16-October 21, 1991

Time: 7:00 AM - 3:00 PM

Place: Corsica Room

What: Classes in:

- Refreshing the basic skills of:
  - Reading
  - Writing
  - Math
  - Science

- New this session:
  - Handling Stress
  - Budgeting Time

PPPL Begins New Program in Workforce Skills Training

Classes to Begin Next Month

PPPL Joins Partnership, Wins Grant for Training

Chance to Improve Work Skills Offered to PPPL Employees Through New Training Initiative

Area Employers to Offer Training In Work Skills to Meet Future Demands of Technology Changes

PPPL has entered a partnership with Mercer County Community College and two other area employers to help develop and teach new skills to meet changing technological requirements in the workplace. The program, Skills for Tomorrow -NOW! (New Opportunities in the Workplace), will be partially funded by a $272,000 grant from the U.S. Department of Education.

The three employers, General Motors Inland Fisher Guide Division plant in Ewing, St. Francis Medical Center in Trenton and PPPL, will incur matching costs primarily in the form of salaries for students' time and administrative support that will be required.

A Model for Other Cities

A major objective of the new program will be to create a training experience which can be duplicated by similar partnerships in other US cities. Employees benefit directly from the training offered by such programs while employers benefit by having a more qualified workforce and sharing in the training experience and costs.

According to Bill Johnson, Manager of Training and Development for PPPL, Mercer County Community College is responsible for developing and conducting the courses that will be offered under the new program. He said that the College has hired a program director and is currently interviewing to hire teaching and curriculum development personnel to work with the partners at their facilities.

Personnel from Mercer County Community College will be at PPPL at various times over the next 15 months to conduct skill evaluations, training needs assessment, develop the curriculum and instructional materials and training modules, and produce instructional guides. Johnson, who worked with MCCC

• SKILLS • FOR • TOMORROW

New Opportunities in the Workplace

Be a part of the partnership between Mercer County Community College, General Motors Inland-Fisher Guide Plant, St. Francis Medical Center, and Princeton Plasma Physics Laboratory

MERCER COUNTY COMMUNITY COLLEGE
ST. FRANCIS MEDICAL CENTER
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- **Prepare for your future in the workforce**
- **Develop new work skills or improve current ones**
- **Benefit from planning with college counselors**
- **Create an individual education plan from several courses offered**
- **Train at your worksite**
- **Learn during your working hours**
- **Receive Continuing Education Unit (CEU) credits**

Mercer County Community College, one of only 75 educational institutions nationwide to receive a federal grant from the U.S. Department of Education to form a partnership between business, industry and education, will be customizing courses such as computational math, algebra, writing for results and problem solving, tailored to meet the specific needs of our Quality Operators.

Employes interested in participating in this Joint GM-UAW project can sign up in the cafeteria on May 20th, between the hours of 2:00 - 4:00 PM. Registration and assessment testing will be on employes' time. Third shift employes who are interested in participating should contact Bob Lewis on Ext. 6239 or Jim DiCello on Ext. 6389. Assessment testing will take place May 28 and 30 from 1:00 - 3:00 PM for second and third shift employes and June 3 and 4 from 3:00 - 5:00 PM for first shift employes. Program orientation for those selected will take place June 7 at 2:15 PM and 3:15 PM. Classes will begin June 10 and will run for five weeks from 7:00 AM to 3:00 PM. Additional sessions will be offered later in the year.

********** REMEMBER REGISTRATION IS MAY 20TH IN THE CAFETERIA **********

For further information, call Bob Lewis, Ext. 6239

Surveys

PRINCETON PLASMA PHYSICS LABORATORY/MCCC
Skills For Tomorrow NOW

Employer Evaluation Form
Fax (609) 890-6338

We Encourage Comments On Additional Page(s)

Part A. Please circle the appropriate number:

	Strongly Agree	Agree	Dis-Agree	Strongly Disagree	DK
1. Do employees show a better understanding of terms used in the workplace?	1	2	3	4	5
2. Have there been fewer errors or accidents?	1	2	3	4	5
3. Did communications improve?	1	2	3	4	5
4. Is there improvement in the completion of forms or other paperwork?	1	2	3	4	5
5. Are employees able to follow directions more easily?	1	2	3	4	5
6. Are employees using English on the job more often? (If applicable)	1	2	3	4	5
7. Have employees' math skills improved?	1	2	3	4	5

PART B. Please answer the following questions:

1. What are the positive aspects of the program?

2. What are the negative aspects of the program?

3. List any improvements or benefits for your employee or for the company that you have noticed because of this training program.

4. What recommendations would you make about the program?

5. How would you encourage more people to attend the program?

6. Would you like the program to continue? Yes_____ No_____
   Please explain:

Signature: Date:

Name & Job

Address:

Telephone:

ST. FRANCIS MEDICAL CENTER/MCCC

Skills for Tomorrow NOW
Employee Evaluation Form

Part A. Please circle the appropriate number:

	Strongly Agree	Agree	Dis-Agree	Strongly Disagree	DK
1. Do you have a better understanding of terms used in the workplace?	1	2	3	4	5
2. Do you have a more positive attitude towards yourself/others/work?	1	2	3	4	5
3. Have you had fewer errors or accidents?	1	2	3	4	5
4. Did your communications improve?	1	2	3	4	5
5. Have you improved in preparing forms and other paperwork?	1	2	3	4	5
6. Are you able to follow directions more easily?	1	2	3	4	5
7. Do you use English on the job more often? (If applicable)	1	2	3	4	5
8. Have your math skills improved?					

PART B. Please answer the following questions:

1. What are the positive aspects of the training program?

2. What are the negative aspects of the training program?

3. List any benefits or improvements that you feel you have achieved through this training program.

4. What recommendations would you make about the program?

5. How would you encourage more people to attend the program?

6. Would you like the program to continue? Yes_____ No_____
   Please explain:

Signature: Date:

Name & Job

Address:

Telephone:

Class Survey

Before Class Discussion

1. Over the last week, did you use the material from the last class at home or work?

Yes No Not sure

2. If you did, how did you use the last week's class?

3. Look over this week's class outline. Can you think of any ways to use the material during the next week?

Yes No Not sure

4. If you can, how can you use it?

At end of class ask...

1. How much did you like the parts of this class?

	Least				Most
The instructors explanations	1	2	3	4	5
The exercises	1	2	3	4	5
The class discussion	1	2	3	4	5

Continued

2. Can you think of any ways to use the class material at home or at work?

Yes No Not sure

3 If you can, how can you use it?

RE: Robert Guest - Dept. 4, Job Bank
Sharon Geise - Dept. 1, 3rd. shift

October 29, 1991

Dear Mr. Chebra:

Recently several of your hourly employees completed a five week course in the GM/UAW/MCCC Workplace Skills Project. In order to evaluate our program and curriculum and to improve it, we would like your feedback.

Please take a few minutes to share your impressions of the benefits to your department, to GM, and to the employees from this program. If you have any suggestions for the program, or information that could be included, please let me know.

Please return this letter to Bob Lewis in the enclosed envelope by November 18th. Thank you for your time and support. We have enjoyed working with your employees - they are a motivated, energetic and hardworking group.

Sincerely,

Elaine S. Weinberg
Director
Workplace Skills Project

MERCER
COUNTY
COMMUNITY
COLLEGE

P.O. Box B
Trenton, New Jersey 08690
(609) 586-4800

Dear Superintendent:

James Duncan recently completed a five week course in the GM/UAW/MCCC Workplace Skills Project. In order to evaluate our program and curriculum and to improve it, we would like feedback from you concerning the progress and/or improvement of your employee. Thank you for your time.

Did the course help the employee in the following areas:

	Yes	No	N/A	Comments*
1. Understanding verbal instructions				
2. Asking for clarification				
3. Understanding written instructions				
4. Communicating with supervisors				
5. Communicating with co-workers				
6. Reporting information accurately				
7. Ability to learn a new skill				
8. Problem solving				
9. Improved safety awareness				
10. Enthusiasm for work				
11. Self-confidence				
12. Attendance				
13. Other				

* Please add any additional comments on the back of this page

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On a scale of 1 to 5, 1 being the lowest, please answer the following:

1. Were you satisfied with the training your employee received?

   1 2 3 4 5

2. Was the training course valuable to your employee?

   1 2 3 4 5

3. What recommendations do you have for the next Workplace Skills Project class?

PLEASE RETURN THIS FORM TO BOB LEWIS IN THE ENCLOSED ENVELOPE BY AUGUST 12TH.

Thank you for your time and support. We have enjoyed working with you and your employees.

Yours truly,

Elaine S. Weinberg

Elaine Weinberg
Director
Workplace Skills Project

CONTINUING EDUCATION

Mercer County Community College

COURSE EVALUATION

Center for Training and Development

Your opinions regarding our programs and services are important. Your feedback will be used to improve the quality of our program. Please circle the number that most closely describes your opinion.

Course Title _____ Date(s) _____

Course # and Section # _____ Instructor _____

Instructor:	Strongly Agree	Agree	Disagree	Strongly Disagree
A. The instructor was well-prepared and knowledgeable of the subject.	4	3	2	1
B. The instructor organized material in a clear, concise manner.	4	3	2	1
C. The instructor presented materials on an appropriate level.	4	3	2	1
D. The instructor communicated effectively.	4	3	2	1

Specific Comments: _____

_____

_____

Course Content

E. The subject matter was interesting and relevant to my job.	4	3	2	1
F. The course allowed me to acquire practical skills and knowledge needed to perform my job.	4	3	2	1
G. The materials and or exercises gave me a good working knowledge of the subject.	4	3	2	1

Specific Comments: _____

_____

_____

Please list course weaknesses and/or suggestions for improvement: _____

_____

_____

Please list course strengths: _____

_____

_____

What other courses/workshops/seminars would be useful to you? _____

_____

_____

MCCC 8804 Rev. 3/89

Writing Sample
Post Assessment
Manufacturing

Final Document
High School Graduate who begain reading on an 8th grade level and now reads at a 10th grade level.

Second Document
ESL Student

The Benefits Of Exercise

Good health could add years to your life. The way you feel about yourself. You have to take pride in taking care of your mind and body. The first step in aquiring a healthy lifestyle is an exercise plan.

Whether on your own or with a trainer or in a helth club. The beginner should be aware of proper breathing, technique, and the mental concentration needed to achieve the maximum results and avoid injury. If you aren't sure of your ability to follow exercise procedures I would recommend a trainer.

Maintaining an exercise program can be as difficult as beginning one. It's of the upmost importancë that you change your routine and vary your exercise program, Being careful not to overtrain, exercising 3 times a week is the perfect schedule for a beginner. An hour to an hour and a half workout is adequate, With proper n nutrition and exercise you will find that you would feel differently about oneself.

You will have a better outlook on life and in everything you do. But you must keep in imnd that it won't happen by itself you must work at it.

Set a goal for yourself and stick to it. In the end you will look and feel like a winner.

Quality On The Road

G.M. has a new approach to its marketing strategy. The new approach is headed by a 55 year old Chinese woman who has proven her abilities in many ways. Her humble pie concept of marketing has been an asset to G.M..

"Putting Quality On The Road", that is the overall theme of G.M.'s new advertising campaign. The theme represents the humble pie strategy. For years G.M. has not lived up to the expectations of its consumers. G.M. is now saying that the quality of their products has improved and that they want to win back the confidence of the consumer.

Shirley Young is the person responsible for the humble pie strategy. She is a Madison Avenue import. In a highly unusual arrangement, Young remains as a consultant and chairwoman of the research subsidiary for her former employer Grey Advertising as well as holding the title of vice-president for consumer marketing at G.M. It was her idea that helped pioneer the use of attitudinal studies in consumer market research.

As one of G.M.'s top ranking female executives, Young is an an asset to G.M.'s quality campaign. She has crystallized concerns about quality into a strong marketing strategy. This represents a startling change in the nation's #1 carmaker's strategy. Unlike other top executives young has become heavily involved in such areas as new- product launches and dealer relations. One of her early achievements was pushing for such projects as roadside assistance and a toll- free hotline for Cadillac owners. Young has also helped in bringing back separate identities to the different G.M. divisions.

The humble pie strategy is no doubt a turnabout for the nation's #1 car maker. This quality campaign is something G.M. has wanted for a long time. Even though Young's enthusiasm is far reaching the outcome will be left up to the company's engineers. They must make good on their claim that their cars are better. It's up to them to put Young's slogan on the road to success.

Shadowing and Advisory Meeting Samples

MERCER COUNTY COMMUNITY COLLEGE
P.O. Box B
Trenton, New Jersey 08690
(609) 586-4800

April 17, 1991

Dear Ronnie,

To assist you in explaining the shadowing process to your employees, I have enclosed a sample letter that you may choose to use. Please feel free to modify the letter to your specific needs. It's merely intended as a guide to assist you in setting the stage for the first phase of our program.

Before I start shadowing, I would like to meet with you briefly so that you can provide me with an overview of your organization and the role these employees play in it.

If you have any questions or need further clarification, please contact me. I'll look forward to seeing you on Wednesday and Thursday, April 24 and 25, at 9:00 am.

Sincerely,

Elaine

Elaine S. Weinberg
Project Director,
Workplace Skills Project

April , 1991

Dear :

Our organization is in the process of developing some special courses with Mercer County Community College for implementation this summer. In order to do this, a person from the college needs to spend a day with us observing some of the different jobs we do.

You have been selected to represent our organization to demonstrate your job.

What to expect:

- She will be with you for several hours.
- She will take notes of the different activities included in your job.
- She will ask you for copies of written material used on the job (such as charts, spreadsheets, forms, etc.). Please be assured that any confidential items will deleted.

What not to expect:

- She will not do a performance evaluation.
- She will not release any information to us about your job performance.
- She will not talk to you or interfere with your routine unless you request it.

We appreciate your participation in this project which will benefit all of us in our organization. You will be contacted by to set up a time.

Thank you for your time.

Workplace Skills Project

Advisory Council Meeting
Agenda
May 13, 1991
St. Francis Medical Center

1. Project Summary

2. Upcoming events

   a) DACUM - May 15, 16, 1991, 8:00 am, SFMC
      - May 22, 1991, 8:00 am, SFMC

   b) Employee Recruitment

      1) Methods
      2) Publicity
      2) Timeframe
      3) Responsibilities

   c) Orientation

      1) Forum used - small group/department/other?
      2) Timeframe
      3) Personnel

   d) Testing/Pre-course counselling by college counselor

      1) Employee release time
      2) Timeframe
      3) Location

   e) First course begins week of June 3, 1991 (by Grant Mandate)

      1) Schedule for release times
      2) Frequency of release time per individual
      3) Amount of people released per course

Presentation for Senior Management

1. Thanks for agreeing to join this program. It gives the College the opportunity to provide service to the partners that we otherwise might not have.

2. It gives the Partners the opportunity to receive training for their employees that they might otherwise might not be able to do at this time.

3. With the changing needs of the workplace, it gives the companies the opportunity to increase the skills of their employees and ultimately increase productivity, safety and job satisfaction.

4. It gives the employees the potential to improve themselves with training that they otherwise would not have.

5. It is a bold, big move that your company is making towards the national literacy in the workplace pledge of more well-trained employees in the year 2000.

Video Under Separate Cover

Brochure

Mercer County Community College
Division of Corporate and Community Programs

We've been a pioneer in the development of successful workplace education programs for the area's premier employers.

The Workplace Education program was initially funded by a $272,000 United States Department of Education National Workplace Literacy grant. This program has developed a model that serves MCCC's business partners in upgrading basic job-related skills.

Through this grant MCCC has trained more than 900 workers at:

- General Motors Inland Fisher Guide Plant.
- Princeton Plasma Physics Laboratory
- St. Francis Medical Center
- Rhein Chemie Corporation

Now *your* company can benefit from workplace education. Call 609-586-4800, ext.612.

"I wish this program could continue...we all benefited highly. It renewed our enthusiasm for our jobs."

Charles A. Smith
Princeton Plasma Physics Laboratory

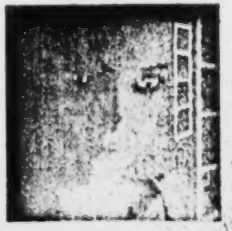
Workplace Basic Skills Education

AN INVESTMENT IN SUCCESS

"The program allowed me to get the practical writing skills I needed to perform my job better. The teachers were warm and friendly and made learning easy."

Lynda Gillette
St. Francis Medical Center

mercer county community college
DIVISION OF CORPORATE AND COMMUNITY PROGRAMS



Elaine Weinberg, Workplace Education Director
609-586-4800, ext.612.

mercer county community college
DIVISION OF CORPORATE AND COMMUNITY PROGRAMS

I Why we developed Workplace Basic Skills Education...

Today, employees must compute and solve problems at ever higher levels to function on the job and in society. This is critical to business' success. But often the workforce of today is not well prepared.

- 23 million workers need basic education.
- High schools are not preparing workers for the changing marketplace.
- The workforce of the next decade will consist of a growing number of people with limited English skills.
- Changes in the workplace are occurring in an environment in which businesses are required to comply with increasingly complex federal and local regulations.

The Challenge
Mercer County is experiencing many of these problems. And for businesses seeking to remain competitive in today's global economy, the situation is not likely to improve.

The Solution
Workplace education can make your employees the competent workforce of today and for the future. And happier employees have more confidence and higher self–esteem.

II How does Workplace Basic Skills Education work?

Mercer County Community College Division of Corporate and Community Programs works with your company to determine what your entry level and mid–entry level employees need to perform better on the job.

- We conduct a job task analysis.
- We design all training, using your materials, forms, instructions, procedures and manuals.
- We plan training sessions based on your time schedule.

As a result, your employees will:

- Learn basic job performance skills at your workplace.
- Develop critical thinking, reading and math skills through job–focused courses.
- Learn to communicate with other employees more effectively.
- Reduce production errors.
- Increase self–esteem.

For more information and a free consultation call Elaine Weinberg, Workplace Education Director. 609–586–4800, ext.612.

III When does your company need custom-designed Workplace Basic Skills Education?

- Many applicants may apply for a job, but few are qualified.
- You find it more cost–effective to retrain than to hire a new applicant.
- Errors in performance are costing time and money, and resulting in accidents.
- Your profit margins now depend on quickly learning new technology.
- Your employees require new skills to accept increased responsibilities.
- Newly created job demands require "brush–up" training.
- Communication breaks down because employees don't speak the same language.

"As our operations change and expand we need employees who are able to handle statistical data, read instructions, and handle what is required. The workplace education program is helping our employees with this."

Ted Cannon, Personnel Director, General Motors Inland Fisher Guide

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NOTE
PO Box B
Trenton, New Jersey 08690-9989

NOTE
NETWORK FOR OCCUPATIONAL TRAINING AND EDUCATION

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A partnership of New Jersey's 19 community colleges designed to meet the training and retraining needs of employers through:

- Employee education and training
- Credit and noncredit courses
- On-campus and on-site courses
- Customized courses
- Statewide access to all 19 community college resources with just one phone call
- Rapid response to employer needs
- Uniform programs for statewide employers
- Online catalog of courses and programs offered by the colleges

A small sample of our programs:

Workplace Literacy
Upward Mobility
Just-In-Time Manufacturing
CAD/CAM
Computer Training
ESL (English as a Second Language)
Health Care
International Business
Fiber Optics
Plastics Technology
Robotics
TV Production
Management/Supervisory Effectiveness
Support Staff/Clerical Training
Communication Skills

Plus custom-designed programs

9-91 80M Graphicolor

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NOTE A partnership of New Jersey's 19 community colleges serving business and industry

"It is almost like having our own in-house training and development department"

Roger F. Crosby, President, Suburban Lubrications, Inc., area wide Jiffy Lube franchisee

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NOTE

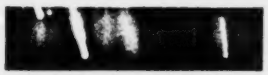
NETWORK FOR OCCUPATIONAL TRAINING AND EDUCATION

A SERVICE OF THE 19 NEW JERSEY COMMUNITY COLLEGES

New Jersey's 19 community colleges are committed to developing today's changing workforce. We provide businesses with programs for education, training and retraining which are:

- **Cost effective and productive**
- **Comprehensive**
  - Credit and noncredit programs
  - Custom-designed courses to fit your needs
  - Regularly scheduled courses and workshops
  - Programs for large companies and small businesses
- **Scheduled for your convenience**
  - Programs ranging from a few hours to several months
- **Taught by expert instructors**
  - Practitioners in their fields
  - Excellent communicators
- **On campus or at your worksite**

Employment:
In addition, community colleges can provide you with a ready source of employees through programs such as student interns, cooperative education and job placement.



"The community college simply came by, listened to our immediate needs and developed a three-phase training program to meet them... quick and easy!"

Sal DeMauro,
Director of Personnel, Kimble Glass Inc.,
a unit of Owens-Illinois

"The college has consistently provided quality education at a reasonable cost, whether for staff support personnel, technicians or engineers."

William A. Johnson, Manager,
Employee Relations & Manpower Development,
Princeton Plasma Physics Laboratory

Call the NOTE representative at your local community college, or reach us through our nationwide toll free number, to find out how we can help you:

1	Atlantic	(609)343-4827
2	Bergen	(201)447-7158
3	Brookdale	(908)842-1900, ext. 719
4	Burlington	(609)894-9311, ext. 456
5	Camden	(609)227-7200, ext. 276
6	Cumberland	(609)691-8600, ext. 233
7	Essex	(201)877-3400
8	Gloucester	(609)468-5000, ext. 302
9	Hudson	(201)714-2171
10	Mercer	(609)586-4800, ext. 278
11	Middlesex	(908)906-4681
12	Morris	(201)328-5180
13	Ocean	(908)255-0409
14	Passaic	(201)684-6153
15	Raritan Valley	(908)526-1200, ext. 367
16	Salem	(609)299-2100
17	Sussex	(201)579-5400
18	Union	(908)709-7603
19	Warren	(908)689-7613

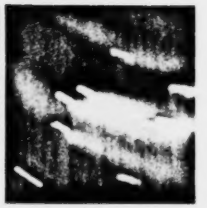
Toll Free (800)821-NOTE

"Zeroing in on fields most in demand in the workplace, the college offered our corporate employees invaluable training."

Janet Buckner,
Training and Development Supervisor
Hoechst-Celanese Corporation

NOTE

NETWORK FOR OCCUPATIONAL TRAINING AND EDUCATION



YES, I am interested in how **NOTE** can help my employees and my business.

- ❑ Have a **NOTE** representative contact me for a free consultation
- ❑ Send me more information

Name _____

Title _____

Organization _____

Address _____

Phone # _____

Call toll free 1-800-821-NOTE

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English	Spanish	Italian	French
Telephone			
What is your phone number?	Cual es su numero de telefono? (Kwal es soo noo-mayhr-oh day tel-ay-fonoh?)	Quale e suo numero di telefone? (Kwal-lay ay sue-oh noo-mare-oh dee tell-ay-phone-oh?)	Quel est votre numero de telephone? (Kell ay voh-truh noo-mayhr-oh duh tell-ay-fohn?)
Numbers:	0 cero (sayr-oh) 1 uno (oono) 2 dos (dose) 3 tres (trace) 4 quatro (kwah-troh) 5 cinco (seen-co) 6 seis (say-s) 7 siete (see-ay-tay) 8 ocho (Oh-choh) 9 nueve (new-wave-ay) 10 diez (dee-ez)	0 zero (zayhr-oh) 1 uno (oo-noh) 2 due (doo-eh) 3 tre (treh) 4 quattro (kwah-troh) 5 cinque (cheen-kay) 6 sei (say) 7 sette (set-teh) 8 otto (oht-toh) 9 nove (no-vay) 10 dieci (dyeh-chi)	0 zero (sayhr-oh) 1 un (uhn) 2 deux (duh) 3 trois (twah) 4 quatre (kat-truh) 5 cinq (sank) 6 six (sees) 7 sept (set) 8 huit (hweet) 9 neuf (nuhf) 10 dix (dees)

MISCELLANEOUS VOCABULARY

English	Spanish	Italian	French
The elevator is over there.	El ascensor esta alla. (Ell ass-sen-sohr es-tah a-ya.)	Il ascensore sta la. (Eel ass-sen-sore-ay stah lah.)	L'ascenseur est la. (Lass-sen-sore ay lah.)
The bathroom	El cuarto de bano (Ell kwar-toh day ban-yo)	La stanza da bagno (Lah stan-zah dah ban-yo)	La salle de bain (Lah sal duh bahn)
The entrance	La entrada (Ell en-tra-dah)	La entrata (La en-trah-tah)	l'entree (l'on-tray)
The exit	La salida (Lah sall-ee-dah)	La uscita (Lah oo-seat-ah)	la sortie (lah sort-tee)
brother	hermano (ayhr-man-oh)	fratello (frah-tell-oh)	frere (frayhr)
sister	hermana (ayhr-man-ah)	sorella (sore-ell-lah)	soeur (suhr)
mother	madre (mod-ray)	madre (mod-ray)	mere (mayhr)
father	padre (pod-ray)	padre (pod-ray)	pere (payhr)
son	hijo (ee-ho)	figlio (fee-lee-oh)	fils (fee)
daughter	hija (ee-ha)	figlia (fee-lee-ah)	fille (fee-yuh)
family	familia (fahm-ee-lee-ah)	famiglia (fam-eel-ee-ah)	famille (famh-ee-yuh)

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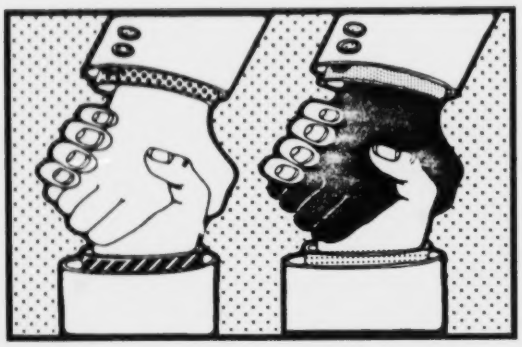
TRANSLATOR



SKILLS FOR TOMORROW NOW

St. Francis Medical Center and Mercer County Community College

English	Spanish	Italian	French
What is your name?	Como se llama? (Komo say yama?)	Come si chiama Lei? (Kom-ay see kee-ah-ma lay?)	Comment vous-appelez vous? (Komo voo-zahpelay-voo?)
Do you speak English?	Habla usted Ingles? (Abla oo-sted een-glays?)	Parla Inglese? (Par-lah een-glay-say?)	Parlez-vous anglais? (Par-lay voo-zan-glay?)
Do you need a translator?	Necisita usted un traductor? (Nes-say-seet-a oo-sted oon tra-duke-tohr?)	Avete bisogno di un tradurra? (Ah-vet-ay beez-on-nyo dee oon trah-doohr-a?)	Avez-vous besoin d'un traducteur? (Ah-vay voo bez-wan d'unh tra-duhk-tuhr?)
Let me get a translator for you.	Permiteme encontrar un traductor para usted. (Payhr-mit-ay-may en-con-trar-oon tra-duke-tohr par-a oo-sted.)	Permetta me trovare un tradurra. (Payhr-may-tah may troh-var-ay oon trah-door-a.)	Permittez-moi trouver un traducteur pour vous. (Payhr-mit-ay-mwa troo-vay unh tra-duhk-tayhr pohr voo.)
Is this an emergency?	Es una emergencia? (Es oo-na ay-mayhr-hen-see-a?)	E una emergenza? (Ay oo-nah ay-mayhr-hen-sa?)	Est-ce une circonstance critique? (Es oon seer-kon-stance kree-teek?)
What is the problem?	Cual es el problema? (Kwal es ell pro-blay-ma?)	Qual e il problema? (Kwal ay eel pro-blay-ma?)	Quel est le probleme? (Kell ay luh proh-blem?)
Is there an accident?	Hay un accidente? (I oon ak-see-dent-ay?)	C'e un accidente? (Say oon ak-see-dent-tay?)	I-ya-til un accident? (Ee-ya-teel uhn ak-see-dohn?)
A car accident?	Un accidente de coche? (Oon ak-see-dent-ay day ko-chay?)	Un accidente di automobile? (Oon ak-see-dent-tay dee otoh-moh-beel?)	Un accident d'auto? (Unh ak-see-dohn doh-toh?)
An accident at home?	Un accidente en la casa? (Oon ak-see-dent-ay en la ka-sa?)	Un accidente in la casa? (Oon ak-see-dent-tay een lah ka-sah?)	Un accident a la maison? (Unh ak-see-dohn a lah may-zohn?)
Are you sick?	Esta usted enfermo? (Es-ta ooo-sted en-fayhr-mo?)	Sta Lei malato? (Sta lay mall-ah-toh?)	Etes-vous malade? (Et voo mall-ad?)
Are you hurt?	Se duele algo? (Say dwell-ay al-go?)	Quale cosa Lei duole? (Kwa-lay ko-sah lay dowell-lay?)	Avez-vous un blessure? (Ah-vay voo unh bless-suhr?)
Is a friend sick?	Esta enfermo un amigo? (Es-ta en-fayhr-mo oon a-mee-go?)	E malato suo amico? (Ay mal-ah-toh soo-oh ah-mee-koh?)	Est votre ami malade? (Ay voh-truh ah-mee mall-ad?)
Is a friend hurt?	Se duele algo a su amigo? (Say dwell-ay al-go a soo a-mee-go?)	Quale cosa duole suo amico? (Kwa-lay ko-sah dowell-lay soo-oh ah-mee-koh?)	A votre ami un blessure? (A voh-truh ah-mee unh bless-suhr?)
Are you here to see a doctor?	Esta usted aqui para consulter un doctor? (Es-ta oo-sted ah-kee par-a kon-sool-tayhr oon dok-tor?)	Sta Lei qui per consultare Il dottore? (Sta lay kee payhr con-sool-ta-rey eel dot-tar-ray?)	Etes-vous ici pour consulter un docteur? (Et-voo ee-see pohr kon-sool-tay uhn dohk-tuhr?)
Go down the hall,	Ande por este coridor, (On-day pohr es-tay kohr-ee-dohr,)	Continue a mezzo del corridoio. (Koh-tin-oo-ay ah mez-zoh dell cohr-ee-doy-oh.)	Allez por la salle (Ah-lay pohr lah sal)
to the left	a la Izquireda (a la is-kee-ray-da)	a sinistra (ah seen-ee-strah)	a gauche (ah-go-ssh)
to the right	a la derecha (a la day-ray-cha)	a destra (ah des-strah)	a droit (ah dwat)
Are you here for a test?	Esta usted aqui para un examen? (Es-ta oo-sted ah-kee par-ah oon eggs-ah-men?)	Sta Lei qui per prendere un esame? (Sta lay kee payhr pren-dayhr-ray oon ess-ay-may?)	Etes-vous ici por prendre un test? (ET-voo ee-see pohr prawn-dra uhn test?
Go down the hall and around the corner.	Ande por el corridor y en torno al rincon. (An-day pohr el kohr-ee-door ee en tohr-no al reen-kon.)	Continua a mezzo del corridoio, e intorno al angolo. (Kon-teen-oo-ah ah med-so dell Kohr-ee-doy-oh ay een-tohr-no al ana-goh-loh.)	Allez por la salle et autour de coin. (All-ay pohr lah sal ay oh-tuhr duh kwan.)
Are you here to see a friend?	Esta usted aqui para visiter un amigo? (Es-ta oo-sted a-kee par-a veez-ee-tayhr oon ah-mee-goh?)	Sta Lei qui per visitare suo amico? (Stah lay kee payhr veez-ee-tar-ay soo-oh ah-mee-koh?)	Etes-vous ici pour visiter un ami? (Et-voo ee-see pohr veez-ee-tay uhn ah-mee?)
What is your friend's name?	Como se llama su amigo? (Komo say yama soo ah-mee-goh?)	Como si chiama suo amico? (Komo see kee-ah-ma soo-oh ah-mee-koh?)	Comment s'appele votre ami? (Komo sa-pell voh-truh ah-mee?)
He/she is in room number____.	El/Ella esta en cuarto numero___. (El/Aya es-ta en kwar-toh noo-mayhr-oh_____.)	Esso/Essa sta alla stanza numero___. (Es-so/Es-sa stah ah-la stan-zah noo-mayhr-oh___.	Il/Elle est a chambre numero____. (Eel/el ay ah sham-bruh noo-mayhr-oh___.
Please wait a minute.	Espere un minuto. (Es-payhr-ay oon mee-noo-toh.)	Aspetta un minuto (Ass-pay-tah oon me-noo-toh.)	Esperez une minute (Es-payhr-ay zoon mee-noot.)
A translator will call you back.	Un traductor llamara a usted. ((Oon trah-duke-tohr yahm-ah-rah ah oo-sted.)	Un tradurra la chiamara. (Oon trah-doohr-ah lah kee-ah-mar-ah.)	Un traducteur vouz telephonera. (Unh trah-duhk-tuhr voo tell-ay-fon-ayhr-ah.)

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COMMANDS

Be calm! -- Calmese!
(Kahl-may-say)

Breathe -- Respire!
(Rays-speer-ray)

Breathe deeply!
Respire profundo!
(Rays-speer-ray proh-foon-doh)

Continue! -- Sigue! (see-gay)

Move here! -- Mueva aqui!
(moo-ay-vah ah-kee)

Move there! -- Mueva alla!
(moo-ay-vah ay-ya)

Don't move! -- No mueva!
(Noh moo-ay-vah)

Push! -- Empuje!
(aym-poo-hay)

Don't Push! -- No empuje!
(noh aym-poo-hay)

Put your feet here!
Ponga sus pies aqui!
(Pohn-gah soos pee-ays ah-kee)

Put your feet in the stirrups!
Ponga sus pies en los estribos!
(pohn-gah soos pee-ays ehn lohs
ays-stree-bohs)

Put your head here!
Ponga su cabeza aqui!
(pohn-gah soo kah-bay-sah ah-kee)

Put your hands here!
Ponga sus manos aqui!
(pohn-gah soos mah-nohs ah-kee)

Relax! -- Relaje! (Ray-lah-hay)

Stand up! (Get up!)
Levantase! (Lay-vahn-tah-say)

Don't stand up! (Don't get up)
No levantase! (Noh lay-van-tah-say)

Sit down!
Sientese! (See-ayn-tay-say)

Don't sit down!
No sientese! (Noh see-ayn-tay-say)

VOCABULARY FOR DELIVERY
GIVING AND ASKING FOR INFORMATION

You are pregnant.
Usted esta encinta.
(oo-stayd ay-stah ehn-seen-tah)

Is this your first labor?
Es esto su primer tiempo estar de parto?
(ays ays-stoh soo pree-mayr tee-aym-poh
ays-stahr day pahr-toh?)

You are in labor.
Usted esta de parto.
(oo-stayd ays-stah day pahr-toh)

Do you have labor pains?
Tiene usted dolores de parto?
(tee-ay-nay oo-stayd doh-lohr-rays
day pahr-toh?)

expulsive contractions?
pujos seguidos
(poo-hohs say-gee-dohs)

How frequent?
Con que frecuencia?
(kohn kay fray-kwehn-see-ah?)

Every 10 minutes.
Cada diez minutos.
(kah-dah dee-ays mee-noo-tohs)
(see number chart)

How strong?
Como fuertes? (koh-moh fwayr-tays)

Very strong!
Muy fuertes. (Moo-ee fwayr-tays)
Not too strong.
No muy fuertes. (Noh moo-ee fwayr-tays)

The doctor is coming.
El doctor viene pronto.
(ehl dohk-tohr vee-ayn-nay prohn-toh)

Do you need to urinate?
Necisita usted orinar?
(nay-say-see-tah oo-stayd oh-ree-nahr?)

Here is a bedpan.
Aqui esta un bacin.
(Ah-kee ay-stah oon bah-seen)

Has your bag of water broken?
Ha perdido agua?
(Ah payr-thee-thoh ah-gwah?)

When? -- Cuando? (kwahn-doh?)

An hour ago.
Hace una hora.
(ah-say oon-ah oh-rah)
Two hours ago.
Hace dos horas.
(ah-say dohs oh-rahs)

The baby is about to be born.
Ya el nino va a nacer.
(yah ehl neen-yo vah ah nah-sayr)

We are going to _____
Vamos (vah-mohs) . . .

the pre-delivery room a la sala prenatal
(ah lah sah-lah pray-nah-tahl)

the labor room a la sala de labor
(ah lah sah-lah day lah-bohr)

the delivery room a la sala de partos
h lah sah-lah day par-tohs)

We're going to do _____
Vamos a ponerle . . .
(vah-mohs ah poh-nayr-lay . . .)

a rectal exam
una enema (oo-nah ay-nay-mah)

an enema
una lavativa (oo-nah lah-vah-tee-nah)

They are going to use _____
Van a usar . . .
(vahn ah oo-sahr . . .)

forceps
forceps (fohr-sayps)

tongs
tenezas (tay-nay-sahs)

pincers
pinzas (peen-sahs)

They are going to do a cesarean.
Van a hacer una operacion cesarea.
(vahn ha ah-sayr oo-han
oh-payr-rah-see-ohn say-sayr-ah)

It's a boy!
Es un nino.
(Ays oon neen-yoh)

It's a girl!
Es una nina!
(Ays oo-nah neen-yah)

mercer COUNTY COMMUNITY college

PRONUNCIATION OF VOWELS

A (ah) English sound: father
casa (cah-sah) (house)
blanca (blahn-cah) (white)

E (ay) English sound: day
cafe (kah-fay) (coffee)
leche (lay-chay) (milk)

I (ee) English sound: weed
dia (dee-ah) (day)
vivir (vee-veer) (to live)

O (oh) English sound: snow
codo (koh-thoh) (elbow)
solo (soh-loh) (alone)

U (oo) English sound: food
uno (oo-noh) (one)
utero (oo-tay-roh) (uterus)

Y (ee) English sound: weed
y (ee) (and)

NUMBERS

1 uno (oo-noh)	6 seis (sayce)
2 dos (dohs)	7 siete (see-ay-tay)
3 tres (trayce)	8 ocho (oh-cho)
4 quatro (kwah-troh)	9 nueve (noo-ay-vay)
5 cinco (seen-koh)	10 diez (dee-ays)

DACUM

DACUM PROFILE

FOR VACUUM SYSTEM TECHNICIAN

DACUM PANEL MEMBERS

Richard J. Meagher - Vacuum Technician
Thomas J. Czeizinger - Vacuum Technician
Gary R. D'Amico - Electronic Technician
Carl R. Bunting - Vacuum Technician
Bud Kearns - Vacuum Technician
Thomas J. Provost - Supervisor
Joseph B. Winston - Supervisor
Mike DiMattia - Vacuum Technician
Jim Walsh - Vacuum Technician, Electronics

DACUM FACILITATOR

David Flumbaum

RECORDER

Raymond Procaccini

DATE

May 15-16, 1991

LOCATION

Princeton Plasma Physics Lab
Mercer County Community College

The **VACUUM SYSTEM TECHNICIAN** will be able to operate, test, maintain, diagnose and repair vacuum systems in support of the Tokamac Fusion Test Reactor (TFTR).

The Vacuum System Technician will be able to:

TASKS

A.	**PERFORM PERIODIC MAINTENANCE OF TORUS VACUUM PUMPING SYSTEMS (TYPS) pumps/valves**	1. Configure pump/valve/system for maintenance service	2. Change oil	3. Change belts	4. Remove valve for service	5. Remove valve internals for service	6. Take oil sample for radioactive contaminents	7. Clean water flow switch	8. Operate TVPS pumps/valves	9. Test run pump after maintenance
		10. Reconfigure pump/valve/system for normal operations								
B.	**INSTALL PRIMARY VACUUM SEALS**	1. Assess seal type and size needed	2. Clean seal and seal surfaces	3. Fit seal to piece	4. Install seal	5. Check seal for leakage	6. Apply approval label to joint			
C.	**OPERATE RESIDUAL GAS ANALYZERS (RGA)**	1. Log onto computer	2. Select proper mode of operation	3. Perform mass scans	4. Perform peak height scans	5. Analyze data related to health of vacuum environment	6. Report health status to chief operating engineer			
D.	**SUPPORT CONTROL ROOM OPERATIONS**	1. Review shift-to-shift log	2. Verify that RGA is functional	3. Check graphic overview of TVPS to determine vacuum system status	4. Perform start-up check list	5. Configure gas injection system	6. Report TVPS and diagnostic status to Chief Operating Engineer (COE)	7. Open torus interface valves	8. Monitor RGA for abnormalities	9. Acquire RGA data
		10. Conduct scans of RGA	11. Support boronization of vacuum vessel	12. Perform glow discharge cleaning procedures	13. Vent systems by procedure (OP-G-05)					
E.	**MANAGE TFTR GAS SUPPLY**	1. Assess needs for operation	2. Inventory gas supply	3. Order gas	4. Control storage methods/areas	5. Replace gas cylinders				
F.	**REPAIR VACUUM EQUIPMENT**	1. Determine component malfunction	2. Select repair technique	3. Rebuild manual valves	4. Rebuild pneumatic valves	5. Rebuild electric valves	6. Rebuild gas injector assembly	7. Rebuild turbo pumps	8. Rebuild mechanical pumps	9. Rebuild ion pumps
		10. Repair vacuum sensors	11. Rebuild leak detectors	12. Rebuild RGA sensor heads	13. Rebuild glow discharge probes	14. Refinish vacuum flange sealing surfaces	15. Maintain vacuum equipment inventory	16. Replace failed system components		
G.	**PERFORM MAINTENANCE OF APPENDAGE VACUUM SYSTEMS**	1. Schedule maintenance activities	2. Perform functional check-out of system	3. Bake out system	4. Calibrate system sensors	5. Service pumps	6. Perform leak checks			
H.	**PARTICIPATE IN VACUUM SYSTEM DESIGN**	1. Select components for form, fit, function	2. Consult with physicists/engineers	3. Conduct tests for vacuum compatibility	4. Modify system configuration					
I.	**PROVIDE VACUUM ENVIRONMENT**	1. Coordinate activities with Operating Physicist/ Engineer	2. Determine vacuum equipment required	3. Perform start-up procedures	4. Measure vacuum quantity	5. Analyze vacuum quality	6. Remedy vacuum deficiency	7. Perform shut-down procedures	8. Perform venting procedures	

(continued on insert)

VACUUM SYSTEMS TECHNICIAN LISTS

KNOWLEDGE/SKILLS

1. Work Place Basic Skills
   a. Computation - Basic Algebra/Geometry - Use scientific notation - read logarithmic scales
   b. Oral Communication (listening/speaking) - Terminology (technical/ scientific & ohms)
   c. Written communication - basic written documents functional documents (see list)
   d. Reading:
      - Interpret and implement technical documents/manuals/procedures
      - Interpret graphs, charts, diagrams
      - Text books, testing procedures
      - Safety, health, work practice procedures
   e. Interpersonal:
      - Relate to all levels of employees/backgrounds, educational levels
      - Supervisor relationship/responsibilities
      - Team work/peer relationships
      - Conflict management/resolution
   f. Science:
      - Related physics, chemistry, technology principles
      - Vacuum technology
      - Basic AC/DC principles
   g. English as a Second Language:
      - not a current need

2. General Knowledge/Skills
   a. machine shop (i.e. grinding/drill press)
   b. soldering, splicing
   c. measuring/drawing sketches
   d. operate computer
   e. mechanical
   f. electrical
   g. read blueprints
   h. draw prints
   i. read electrical prints
   j. keyboarding
   k. filing
   l. interpret data - i.e., gas analyses, vibration scans, pressure
   m. interpret emergency codes

WORKER TRAITS AND ATTITUDES

1. positive attitude
2. sense of humor
3. team worker
4. flexible
5. versatile
6. safety conscious
7. attention to detail
8. calm
9. patient
10. thorough
11. manual dexterity
12. mechanical aptitude
13. electrical aptitude
14. follow directions
15. reliable, dependable

TOOLS & EQUIPMENT

1. hand tools (metric/SAE)
2. power tools
3. computer
4. leak detectors
5. residual gas analyzer
6. multimeter (DMM)
7. oscilloscope
8. ultrasonic bathes
9. vapor degreaser
10. bake oven
11. bead blaster
12. drill press
13. lathes, milling machine
14. lifting/rigging equipment
15. spot welder
16. soldering iron
17. precision measurement instruments
18. voltage calibrators
19. calibrated leak rate
20. signal generators
21. power supply
22. frequency meter
23. megger
24. calculator
25. chart recorders
26. communication systems (phones)
27. pumps - turbo/mechanical
28. vacuum pumps
29. oil change cart
30. ultrasonic leak detector
31. helium sniffer
32. haologen detector
33. oxygen monitor
34. compressed gas regulator
35. safety equipment

(continuation)

TASKS

J.	TROUBLESHOOT VACUUM SYSTEMS	1. Analyze failure report	2. Determine urgency of failure	3. Consult with supervisor/COE	4. Select method of action to verify failure	5. Select equipment to determine failure	6. Localize the failure	7. Determine remedy for the failure	8. Arrange the scheduling of the repair
K.	DETECT VACUUM LEAKS	1. Determine "method" of finding the leak	2. Determine size of the leak	3. Determine location of the leak	4. Determine remedy for the leak	5. Perform remedy to the leak	6. Verify correction of the leak		
L.	PREPARE COMPONENTS FOR VACUUM	1. Determine cleaning method to be used	2. Determine if leak check is required	3. Clean components ultrasonically	4. Clean components using detergents	5. Clean components using solvents	6. Clean components using bead blasting	7. Polish components	8. Air bake components
		9. Package components to insure cleanliness	10. Complete documentation for "prepped" item						
M.	PROVIDE ELECTRONIC SUPPORT FOR VACUUM SYSTEM	1. Instal electronics hardware	2. Debug electronics hardware	3. Calibrate electronic hardware	4. Install electronics software	5. Debug electronic software	6. Verify electronic hardware operation	7. Modify electronic equipment	8. Design electronic test fixtures
		9. Troubleshoot electronic systems	10. Replace electronic systems/sub-systems and components	11. Repair electronic assemblies and components	12. Test electronic assemblies/systems/sub-systems	13. Calibrate electronic assemblies/systems/sub-systems	14. Maintain inventory of support hardware		
N.	CONDUCT SCHEDULED PREVENTIVE MAINTENANCE ON ELECTRONIC SYSTEMS	1. Check batteries	2. Adjust power supplies	3. Replace fans	4. Clean filters	5. Replace filters	6. Check connectors and hardware		
O.	PREPARE DOCUMENTATION	1. Write installation procedures	2. Write repair procedures	3. Write maintenance procedures	4. Write operational procedures	5. Write test procedures	6. Write calibration procedures	7. Write system documentation (schematics, layouts, flow charts, diagrams)	8. Complete faiure reports
		9. Maintain logs (repairs, activities, shift records)	10. Apply for work permits	11. Fill out chemical reports	12. Complete safety report	13. Complete self appraisal reports	14. Label hazardous waste	15. Complete travel vouchers	16. Complete purchase requisitions
		17. Prepare sketch for fabrication	18. Prepare documentation for approval	19. Document the result of corrective action					

WORKPLACE BASIC SKILLS

Curriculum for PRINCETON PLASMA Physics Lab Vacuum Technician

DACUM PANEL MEMBERS

Carl Bunting - Vacuum Technician
Nunzio E. Cernero -Organization Development Specialist, MCCC
Tom Geizinger - Vacuum Technician
Tom Provott - Supervisor
William A. Johnson - Management Training & Development
Anthony J. Martinez - Science Instructor, MCCC
Susan Murphy - Head, Certification & Training
Katherine Safford - Math Instructor, MCCC
Jay F.Wilson- Language Communication Instructor, MCCC
Joseph B. Winston -TVSP Supervisor

DACUM FACILITATOR

David Flumbaum
Maryland DACUM Resource Center
Dundalk Community College

RECORDER

Ray Procaccini

DATE

May 22, 1991

LOCATION

Princeton Plasma Physics Lab
Mercer County Community College

READING

DESCRIPTION:

Students will be able to comprehend technical documents, develop proficiency with the technical vocabulary used in the lab, interpret graphic data, locate and read information more efficiently by use of skimming and scanning techniques.

GOALS:

(1) Comprehension of technical documents, manuals, etc.
(2) Develop an ability to read technical vocabulary used in the workplace
(3) Interpret graphic data
(4) Read by using skim, scan techniques
(5) Locate information

ELEMENTS:

. Technical documents (various levels)
. Comprehend technical documents
. Safety Manuals
. Track information through to the end
. Labels, Codes, Regulations
. Bulletin Boards (Job Postings)
. Manuals that come with the equipment
. Procedures
. Graphs, charts, diagrams
. Textbooks
Skim & Scan a manual

WRITING

DESCRIPTION:

Students will be able to write or modify a well organized document, from existing documents and be able to complete various logs, forms, and follow existing formats in the workplace.

GOALS:

(1) Write well organized, clear, accurate, concise documents in a variety of formats
(2) Revise, modify, review, and generate document based on an existing document or a current or new situation
(3) Complete forms, log entries, and follow existing formats for reports

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ELEMENTS:

. Free form
. Create/develop procedures in sequence
. Complete forms
. Revising existing documentation
. Make entries into log books
. Description of activities
. Actual documents are identified on chart
. Fill in blank
. Follow formats
. Self appraisals

ORAL COMMUNICATION .....

DESCRIPTION:

Students will be able to present information orally to a variety of audiences, listen, discern and retain information presented orally and develop proficiency with the technical vocabulary used in the lab.

GOALS:

(1) Communicate effectively to co-workers and other audiences
(2) Listen, discern and retain the information being presented
(3) Standardize the technical vocabulary used in the work setting; Develop that proficiency

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ELEMENTS:

- Listen to directions, questions, answers and instructions
- Speaking skills to give directions, reporting
- Provide input to committees
- Describe problems
- Describe processes
- Describe techniques
- Describe technical & scientific procedures

COMPUTING .....

DESCRIPTION:

Students will be able to perform and apply basic arithmetic, algebraic, and geometric functions to work tasks.

GOALS:

(1) Apply mathematical operations to work tasks (i.e. scientific notation)
(2) Perform basic arithmatic functions (+,-,*,/, and fractions)
(3) Apply algebra, geometry and logarithmic functions
(4) Interpret graphic information

ELEMENTS:

- Basic arithmatic, fractions, decimals, percents
- Basic algebra/geometry
- Scientific notation, mostly decimals, positive/negative powers of 10
- Surface area and volume calculation
- Conversions- English & Metric
- Plot and interpret graphs
- Logarithmic, log/semi-log graphs
- Formulas, substitution and calculation
- Ratios/Proportions
- Calculators, both manual and computer
- Make sketches: (elementary mechanical drawing)
- Measurements

SCIENCE .....

DESCRIPTION:

Students will be able to apply basic principles and fundamentals of physical science in the workplace.

GOALS:

(1) Apply basic principles and fundamentals of physical sciences
(2) Apply basic gas and pressure laws; mass, magnetism, etc.

ELEMENTS:

. Vacuum technology (this training will be done outside this program)
. Basic principles & fundamentals of physical sciences
. Physics related to vacuum
. Application, rather than theory
. Electricity voltage, OHM's law
. Mass spectrometer operation
. Solvents, metals, gases
. Measurement instruments
. Temperature
. Heat

INTERPERSONAL/PROBLEM-SOLVING .....

DESCRIPTION:

Students will be able to develop problem-solving, decision-making techniques to resolve interpersonal conflicts and work effectively as a team member.

GOALS:

(1) Problem solve through a stressful situation
(2) Resolve interpersonal conflicts
(3) Develop decision making techniques
(4) Work together as a TEAM: develop traits and attitudes to accomplish that
(5) Dealing with difficult people
(6) Adapt to changing work requirement

ELEMENTS:

. Stress management
. Time management
. Resolve conflicts
. Respond to emergencies
. Decision making
. Employee/Supervisor relationship
. Dealing with difficult people
. Team work
. Assertiveness
. Positive attitudes
. Troubleshooting

WORKPLACE SKILLS PROJECT

DACUM PROFILE FOR
ST. FRANCIS MEDICAL CENTER

PATIENT SERVICES STAFF
and
UNIT SECRETARIES

DACUM PANEL MEMBERS

Paula Brophy
Unit Secretary

Linda Cossaboon
Patient Services
(Admissions, Bed Assignment,
Pre-Admission Testing)

Iris Maldonado
Patient Services
(Emergency Room Registrar)

Lucy Menichelli
Unit Secretary

FACILITATOR
Walter A. Meyer
Director, Center For Training and Development
Mercer County Community College

RECORDER
Elaine S. Weinberg
Director, Workplace Skills Project
Mercer County Community College

DATE
November 13-14, 1991

LOCATION
Mercer County Community College

Patient Services (including In-Patient and Out-Patient, and Emergency Rodm) and the Unit Secretary:

Patient Services personnel obtain and record pertinent patient information in a timely fashion to facilitate the start of patient care.

Unit Secretaries coordinate the efforts of doctors, nurses, and Medical Center service departments to facilitate efficient and effective patient care.

TASKS →

The Pre-admission Clerk will be able to:

I. Pre-Admission Testing

1. Receive charts from pre-admission department nurses for required procedures	2. Call patients for information and scheduling	3. Assess need for bilingual translator	4. Explain to patient by phone preparation needed for special procedures	5. Call blood bank for appointment - coordinate with other hospital procedures	6. Key data into computer	7. Assemble pre-admission chart	8. Match chart with schedule to ensure accuracy and timeliness of appointments	9. Sign in patients when patient comes in for tests and send to appropriate department		

The Bed Assignment Clerk will be able to:

II. Make Bed Assignments

1. Reconcile census of in-house patients	2. Maintain manual record of bed availability	3. Check on doctor's admitting privileges	4. Obtain patient information from doctor and/or Emergency Room Nurse	5. Check diagnosis for bed placement	6. Call a given floor to check bed availability	7. Give patient information to floor nurse or unit secretary	8. Complete paperwork for bed assignment	9. Determine with unit secretary/nurse where patient is physically placed	10. Give doctor or Emergency Room bed assignment	11. Fill out pertinent data in direct/ emergency admit log
12. Give admissions information to admission clerk/ Emergency Room Registrar										

The Patient Services clerk will be able to:

III. Admit Patients

1. Call patients for admission	2. Assess need for translation	3. Recognize the need for immediate evaluation	4. Obtain insurance information •Financial Counselors •Pre-certification (HMO)	5. Refer to financial counselors if necessary	6. Obtain pre-certificate if applicable	7. Maintain security of patient's property in absence of cashier	8. Collect required information to go into medical and financial charts	9. Key data into computer to print out form and make plate	10. Obtain required signatures on consent and other necessary forms if not done at pre-admission testing	11. Make copies of insurance cards and patient ID
12. Separate copies of chart	13. Reassemble charts by procedure	14. Stamp papers for in and out patient services	15. Band (bracelet) the patient	16. Review chart for accuracy and completeness	17. Take patient charts to unit secretary	18. Escort Emergency Room admissions to assigned room	19. Notify non-unit secretary or nurse of patient arrival			

The Unit Secretary will be able to:

IV. Assemble and Maintain Patient's Chart

1. Obtain chart from Admission/Emergency Room	2. Stamp and label all papers in chart	3. Put chart in binder in proper order	4. Review admissions assessment form for patient's allergies and other information	5. Enter data into computer	6. Notify appropriate physician of patient's arrival	7. Maintain daily census (logs, board, computer)	8. Contact Medical Records for past patient records	9. Note on current chart availability of past medical records	10. File test results, consults, reports, and history and physical	11. Review and update chart daily for stamps, missed orders, and completeness
12. Thin the chart as appropriate for long term care patients										

The Unit Secretary will be able to:

V. Schedule and Expedite Patient Care

1. Transcribe doctor's orders from chart to medication or patient Cardex	2. Sign off on time and dates on all doctor's orders on chart and have countersigned by registered nurse	3. Enter physician's orders into computer for tests and diet	4. Communicate orders by phone, in person, by fax or computer to nurses and different departments	5. Ensure patient's knowledge of doctor ordered procedure requiring consent	6. Obtain signed/ witnessed consent from patient for tests/procedures/ surgery as required	7. Call in doctor for consultations upon attending physician's order	8. Contact physician as requested by registered nurse	9. Deliver emergency specimens to lab	10. Follow up on "stat" test orders	11. Maintain and update daily list of I.V. therapy
12. Pick up old medical records charts, medicines, supplies, or food as appropriate	13. Arrange room changes with bed assignment	14. Provide bed assignment with specific needs information	15. Make chart and record changes for internal transfer	16. Call floor for status of bed availability	17. Schedule patient for tests at off-site facility	18. Ensure copy of chart (and films) is available for testing at outside facility	19. Contact Social Services for transportation	20. Contact courier for delivery to various hospital departments	21. Call operator, doctor, and clergy during "code" or emergency	22. Page hospital personnel
23. Respond to patient calls	24. Prepare consent forms for postmortem procedures, including organ donation form									

The Unit Secretary will be able to:

VI. Discharge Transfer Patients

1. Provide bed assignments with information on daily discharges	2. Call Social Services to arrange external transfers to nursing facilities or special service	3. Call Home Care Planners for special equipment, educational programs, or home requirements	4. Make clinic appointments for service patients as needed	5. Call department for necessary films and records to be copied and sent to new facility for transfer	6. Get chart to Medical Records to copy for new facility	7. Transmit personal information to transfer facility by phone	8. Coordinate patient move with hospital supervisor, police, etc. during emergencies	9. Prepare emergency transport consent forms for signature by appropriate parties	10. Keep manual logs of discharges and transfers	11. Review charts for proper signatures, collect all patient information after patient transfer/discharge
12. Disassemble charts and get ready for Medical Records to retrieve	13. Call morgue attendant, or courier if patient expires	14. Work with Transportation Coordinator for organ donation	15. Take expired patient's records to Medical Records	16. Provide switchboard with required form for release of body	17. Arrange with Housekeeping to have room prepared for new patient					

(continued on insert)

BEST COPY AVAILABLE

ATTITUDES

Patience
Interact with others
Manage stress
Flexibility
Responsibility
Compassion
Humanitarianism
Professionalism
Courtesy
Accept feedback
Good manners
Pride in performance
Not squeamish

SKILLS

Using office equipment
Keyboarding
Spelling
Detail oriented
Accuracy
Record keeping
Clear communicator
Organization
Telephone courtesy
Follow-through
Work under pressure
Listen
Understand
Follow-directions
Problem solving
Diplomacy
Assertiveness
Adaptability
Time management
Observation
Reading
Writing
Computation

KNOWLEDGE

Hospital equipment, in general
Medical terminology
Medical abbreviations
Legal/medical diagnosis abbreviations
Hospital procedure
Law (hospital)
Ethics
Reading
Writing
Computation
Keyboard layout
Categories of drugs
-duration of use
-commercial and generic

TOOLS AND EQUIPMENT

Address-o-graph
Cardex
Computer/Printer
Dukane Paging System
Xerox
Print maker
Fax
Telephone
Pager
Calculator
Coffee maker

(continuation of tasks)

TASKS

The Unit Secretary will be able to:

VII. Maintain the Physical Plant

1. Maintain running inventory of supplies	2. Identify needs for supplies, equipment and maintenance services	3. Order supplies through computer or manually	4. Pick up immediately needed supplies	5. Organize storage of equipment and supplies	6. Notify Bio-Med Department concerning broken or damaged medical equipment	7. Notify maintenance concerning broken or damaged physical equipment	8. Clear special orders with supervisor and order through SPD	9. Enter required information and authorization for special equipment into computer	10. Coordinate routine and special cleaning needs with Housekeeping

The Patient Services Clerk and the Unit Secretary will be able to:

VIII. Communicate with Public and Hospital Personnel

1. Communicate in person	2. Communicate by phone	3. Identify the need for bilingual translation	4. Direct public to hospital services	5. Explain limits of what you can tell public	6. Ask family members if they need assistance	7. Explain to doctors patient/family concerns	8. Explain to the nurse the family's information needs and the patient's needs	9. Communicate location of patient to interested parties

WORKPLACE SKILLS PROJECT

CURRICULUM FOR
ST. FRANCIS MEDICAL CENTER

PATIENT SERVICES STAFF
and
UNIT SECRETARIES

DACUM PANEL MEMBERS

Linda Cossaboon
Patient Services

Carol Kivler
Adjunct Faculty, Communications, MCCC

Kathy Safford
Adjunct Faculty, Mathematics, MCCC

Mary Wollman
Supervisor Patient Services

Joanne Young
Nurse Manager

DACUM FACILITATOR
Walter A. Meyer
Director, Center for Training and Development
Mercer County Community College

RECORDER
Elaine S. Weinberg
Director, Workplace Skills Project
Mercer County Community College

DATE
November 19, 1991

LOCATION
Mercer County Community College

Duties of Patient Services (including In-Patient and Out-Patient and Emergency Room) and Unit Services:

Patient Services personnel obtain and record pertinent information in a timely fashion to facilitate the start of patient care.

Unit Secretaries coordinate the efforts of doctors, nurses, and Medical Center service departments to facilitate efficient and effective patient care.

The curriculum will include:

READING

Participants will read, interpret, and understand forms, charts and computer reports, and develop proficiency in medical terminology used in the Medical Center.

GOALS:

1. Comprehend medical terminology used in daily operation of the Medical Center
2. Develop ability to read and understand medical and legal terminology used in hospital operations
3. Interpret information on forms, charts and computer reports
4. Locate information quickly and efficiently

ELEMENTS:

Knowledge of hospital procedures
Read charts and forms
Read and understand directions
Insurance terminology
Medical terminology

TOPICS:

Reading and understanding pre-admission orders
Reading and understanding doctor's orders
Reading and understanding charts, forms and preperation orders
Reading data from computer reports
Collating materials for disbursement to various departments
Reading forms for accuracy
Interpreting floor sheets
Using specialized forms
Understanding labels, codes, and regulations
Reading procedure manuals and memos

WRITING

Participants will write or modify information on charts and forms, key information into computer, complete logs, forms and charts, and follow existing hospital procedures.

GOALS:

1. Write, revise, modify or complete forms, charts, logs, or computer reports as required
2. Spell medical terminology correctly
3. Use appropriate medical, legal, and hospital abbreviations correctly
4. Proofread material for accuracy

ELEMENTS:

Spell medical terminology
Abbreviations of medical, legal and hospital terms
Spell medications
Proofreading
Record keeping
Organization
Data entry into computer

TOPICS:

Spelling medical terms
Using correct legal, medical and hospital abbreviations on forms
Spelling medications correctly on charts and Cardex
Proofreading documents
Recording schedules, appointments and other data

ORAL COMMUNICATION INTERPERSONAL SKILLS

Participants will present information orally to a variety of audiences, listen, understand and retain information presented orally, and develop proficiency with technical vocabulary used in the hospital.

GOALS:

1. Communicate effectively with co-workers, medical and hospital personnel, patients, their families, and external service providers.
2. Listen, understand and retain information being presented
3. Transmit information to appropriate personnel

ELEMENTS:

Listen to instructions, questions, and responses
Give directions and report on requested information
Describe problems
Describe processes, techniques and time requirements

TOPICS:

Telephone courtesy
Obtaining and providing information over the telephone
Being understood by patients and hospital personnel
Obtaining necessary information from doctors, nurses, and hospital services
Flexibility managing multiple priorities
Communicating as part of a team
Responding to requests within "legal"/procedural constraints

The curriculum will include:

MATHEMATICS

DESCRIPTION:
Participants will perform and apply basic arithmetic computation in everyday work situations.

GOALS:
1. Apply mathematical operations to work tasks
2. Interpret arithmetic information
3. Calculate medicine dosage from doctor's orders
4. Schedule procedure time from doctor's orders
5. Utilize information from computer readouts

ELEMENTS:
Addition
Subtraction
Multiplication
Calculator
Time
Computer entries

TOPICS:
Updating daily census sheet
Calculating I.V. drips
Understanding budget
Computing time for preps and medications
Interpreting and applying information from computer readouts
Using calculator

SCIENCE

DESCRIPTION:
Participants will understand basic principles and terminology of biological science in the Medical Center.

GOALS:
1. Transcribe medical terminology from doctor's orders correctly
2. Use correct medical and legal abbreviation on all documents
3. Enter doctor perscribed tests and procedures accurately

ELEMENTS:
Basic knowledge of procedures, diagnosises and preparations
Basic anatomy
Medical terminology
Insurance terminology
Medical, hospital and legal abbreviations
Medications
Medical terms in laymen language

TOPICS:
Interpreting doctor's information accurately
Ordering correct laboratory tests and procedures from doctor's orders
Answering patient's and family's questions accurately, or directing them to correct source
Listing correct diagnosis from doctor's orders
Understanding need for different test preperations

BILINGUAL TRANSLATION

DESCRIPTION:
Participant will refer non-English speaking patient or family member to appropriate translator.

GOALS:
1. Determine language patient or family member speaks
2. Assist in locating appropriate translator
3. Use phrases basic to each language to determine language needs

ELEMENTS:
Basic phrases in languages commonly used in hospital
Written list of commonly used phrases
List of bilingual translators

TOPICS:
Asking basic questions in patient's/family member's own language
Referring patient/family member to another department

The curriculum will include:

PROBLEM SOLVING

DESCRIPTION:
Participants will develop problem-solving and decision-making skills to resolve concerns involving both people and equipment.

GOALS:
1. Problem solve stressful situation
2. Resolve variety of issues which occur on a daily basis
3. Develop decision making techniques
4. Deal with difficult people on the telephone and in person
5. Adapt to changing work requirements

ELEMENTS:
Stress management
Time management
Respond to emergencies
Decision making
Inter-staff relationships
Deal with difficult people
Assertiveness
Positive attitudes
Trouble shooting
Organizational skills
Scheduling

TOPICS:
Recognizing when there is a problem
Developing a problem solving process
Distinguishing between problem solving and decision making
Managing time and equipment priorities during the workday
Learning to use resources efficiently
Ranking priorities
Knowing when to call an RN or doctor

DACUM PROFILE

FOR FRONT LINE MANAGER

DACUM PANEL MEMBERS

Lynne Bedwell
Chief, Clinical Dietician

M. Patricia Hanson
Unit Manager of Psychiatric Services

Frank Ivens
Assistant Director, Security and Safety

Judith Kish
Supervisor, Patient Accounts

Eugene Pokropski
Section Chief, Microbiology

Mary Singleton
Unit Supervisor, Environmental Services

Dolores Smalls
Supervisor, Medical Records

Joanne Young
Nurse Manager, Pediatric Dept. - AM Admission Unit

Mary Wollman
Supervisor, Office Care Service

DACUM FACILITATOR

Ed Fangman
Maryland DACUM Resource Center

RECORDER

Pat Pfeister

DATE

May 15-16, 1991

LOCATION

St. Francis Medical Center
Mercer County Community College

The front line manager plans and implements department objectives, makes appropriate decisions, takes responsibility for fulfilling company's mission, evaluates personnel and programmatic performance, and ensures the continuing success of the department and the organization. The first line manager coordinates staff and effort in an organized manner, using human and material resources, time-management skills, flexibility and human relation skills.

The individual will be able to:

TASKS

A. Assist in Accomplishing Goals and Objectives	1. Assist in developing goals and objectives (W)	2. Gather input from staff in establishing goals and objectives (I,O)	3. Establish departmental goals and objectives (W)	4. Develop a plan for achieving goals and objectives (W)	5. Establish criteria for measuring goals and objectives (W)	6. Assist in setting bench marks (I,O)	7. Submit goals and objectives for approval (W)	8. Notify employees of specific goals and objectives (O,W,I)	9. Establish time frame for accomplishing goals and objectives (W,C,O)	10. Implement plan for achieving goals and objectives (I,W)	11. Periodically review progress toward achieving goals and objectives (W,O)
	12. Determine if goal/objective is achieved	13. Report on goal/objective attainment (I,O,W)									
B. Develop Departmental Policies and Procedures	1. Review policy and procedure manuals (R)	2. Establish need for revised or additional policies and procedures (R,S)	3. Gather input from staff concerning policies and procedures (I,O)	4. Compose procedural statements specific to the department (W)	5. Secure approval for new or revised procedural statements (I,O,W)	6. Notify employees of policy and procedural changes (I,O,W)	7. Explain new and revised policies and procedures to employees (I,O,W)	8. Secure signatures of employees acknowledging understanding of policies and procedures	9. Organize policy and procedure manual (R,W)	10. Make policy and procedure manual available to employees	11. Delegate responsibility for composing or reviewing policy and procedure statements (I)
C. Promote Quality Improvement	1. Determine specific needs for improvement (S)	2. Assure compliance with standards established by outside agencies and organization (C,R)	3. Establish time frames on frequency and duration of evaluation (C)	4. Help establish thresholds (C)	5. Design data collection tools (C,W,S)	6. Coordinate with other departments to conduct a study (I)	7. Implement data collection tools (I)	8. Assure statistical data are collected (C)	9. Document statistical data (C)	10. Analyze statistical data (C)	11. Reevaluate thresholds (C)
	12. Develop action plans for corrective measures (W)	13. Implement action plans (I,O,W)	14. Report results of studies to others in the organization (C,W,O,I)	15. Coordinate with other departments to achieve compliance with standards (I)	16. Delegate responsibility for performing quality assurance activities						
D. Provide for Staff Development	1. Schedule employees for mandatory in-service or continuing education (W)	2. Determine a need for in-service and/or continuing education	3. Plan annual calender for in-service (W)	4. Notify staff development or education resources of need for in-service (O,W)	5. Arrange for guest speakers (I,O,W)	6. Request continuing education materials (I,O,W)	7. Request other departments deliver an in-service (I,O,W)	8. Arrange for vendors to conduct in-service and/or training (I,O,W)	9. Make room arrangements (O,W)	10. Notify employees of in-service (O,W)	11. Continue to expand own knowledge base (S,I,R,C,W)
	12. Plan the in-service (agenda, lesson plan, content) (W,R)	13. Conduct the in-service (O,I)	14. Document content and attendance of in-service (W)	15. Encourage staff to continue to expand knowledge base (I,O,S)	16. Cross train staff (I,S,O)	17. Develop in others their potential (I,O)	18. Foster professionalism in staff (I,O)	19. Act as a resource personal for employees (S,I,O)	20. Assist employees to develop their full potential (I,O)		
E. Evaluate Personnel	1. Determine evaluation cycle (C)	2. Review job descriptions (R)	3. Utilitze criteria-based job descriptions and policies and procedures (R)	4. Provide employee opportunity for self-evaluation (I)	5. Complete performance evaluation forms (W)	6. Discuss evaluation resuts with employee (I,O)	7. Secure signatures on forms	8. Adhere to new hire evaluation procedures (R)	9. Review employee reports/documentation for accuracy (R,C)	10. Follow-up on employee reports and documentation (R,W)	11. Observe employee performance
	12. Counsel employees re: work related issues (I,O,W)	13. Issue verbal written warning notices (I,O,W)	14. Refer employees to employee assistance program (I,O,W)	15. Inform Director of disciplinary actions (I,O,W)	16. Assure employees comply with department and organization policies	17. Maintain performance documentation in personnel files (W)	18. Acknowledge employee accomplishments (I,O,W)				
F. Plan Schedules	1. Review requests for short-term time off and shift preferences (R)	2. Develop tentative schedule (C,R)	3. Assign staff according to skill level	4. Determine adequate staffing needs (C,I,S)	5. Arrange for supplemental staffing (I,O)	6. Maintain adequate staffing level (C)	7. Secure approvals for planned overtime (I,O)	8. Finalize schedule	9. Secure final approval of schedule (I,O)	10. Notify employees of schedule and changes (I,O)	11. Approve disapprove schedule change requests (I,O)
	12. Plan daily assignments (I,O,W)	13. Schedule breaks and lunches (I,O,W)	14. Adjust schedule as needed (I,O,W)	15. Develop a vacation schedule (I,W,C)	16. Stay within budgetary confines (C)	17. Develop schedule within departmental time frames					
G. Conduct staff Meetings	1. Schedule meetings (W,O)	2. Notify staff of meeting date/place time (W,O)	3. Prepare agenda (W)	4. Disseminate information (W,O)	5. Maintain control of meeting (I,O)	6. Record minutes (W)	7. Review minutes (R)	8. Report on meeting to supervisor/director/vice-president (I,O,W)	9. Call impromptu meetings (I,O,W)		

(continued on insert)

TRAITS AND ATTITUDES

WILL BE:	WILL HAVE:
Flexible	Sense of humor
Patient	Ethical values
Understanding	Common sense
Caring	Intestinal fortitude
Helpful	
Interested	
Responsible	
Conscientious	
Health conscious	

TOOLS AND EQUIPMENT

Communications equipment (Dukane)	Typewriter
Computer and peripherals	Microfilm/Microfiche readers
Xerox	Overhead Projector
Fax	VCR
Closed Circuit TV	Video Camera
Dictaphone	Laboratory Equipment
Calculator	Medical Equipmen

KNOWLEDGE AND SKILLS

KNOWLEDGE	SKILLS
Anatomy/Physiology	Advanced reading skills
Basic Statistics	Oral communication skills
Algebra	Written communication skills
Arithmetic	Computing skills
International coding system	Interpersonal skills
Graphs-Interpretation	Public Speaking
Standard International Units	Interviewing
Basic Accounting	Time Management
Basic Economics	Organizational skills
Basic Psychology	Problem Solving skills
Basic Sociology	Decision-making skills
Medical Terminology	Keyboarding
Medical Abbreviation	Listening skills
Basic knowledge of Foreign language	
Basic Metric Conversion System	

(continuation of tasks)

The individual will be able to:

TASKS

H.	**Approve Payroll**	1. Monitor personnel's hours (R)	2. Pick up time reports	3. Verify personnel's hours (R)	4. Make corrections using coding system (W)	5. Justify over/ under time (W,C)	6. Justify scheduled/ unscheduled leaves (W)	7. Sign-off on time sheets	8. Return payroll sheets to payroll department	9. Distribute paychecks (I,O)	10. Resolve discrepancies in employee's pay (C,I,O)	11. Track misuse of time and attendance (C)
I.	**Assist in Preparing Budget**	1. Review previous year's budget (C,R)	2. Review FTE requirements (C,R)	3. Determine FTE requirements (C)	4. Estimate salaries for upcoming year (C)	5. Project trends and future needs (S)	6. Gather input from staff re: budget (I,O)	7. Project capital equipment needs (C,W,S)	8. Project small equipment needs (C,W,S)	9. Project supply needs (C,W,S)	10. Complete justification forms (W)	11. Develop presentations to justify budget requests (C,W,S)
		12. Confer with directors to justify budget requests (I,O)										
J.	**Maintain Equipment and Supplies**	1. Inventory equipment and supplies (C,R)	2. Establish purchasing and re-ordering levels (C)	3. Assure proper rotation of dated material (R)	4. Discard outdated products and supplies (C,R)	5. Monitor supply budget (C)	6. Complete purchase orders to order supplies and equipment (W,C)	7. Secure proper signatures on purchase orders (I,O)	8. Route purchase orders to purchasing	9. Verify supplies have been received (R,C,I,O)	10. Be sure shelves are re-stocked	11. Report discrepancies to accounts payable (I,C,O)
		12. Route invoice/ purchase order to accounts payable	13. Evaluate products and services based on price and quality (C,R,S)	15. Keep current with new products and technology (R,S)	16. Troubleshoot faulty equipment (R,S)	17. Notify appropriate departments of needed repairs (I,O)	18. Verify service has been rendered					

WORKPLACE BASIC SKILLS

CURRICULUM FOR ST. FRANCIS MEDICAL CENTER

FRONT LINE MANAGERS

DACUM PANEL MEMBERS

Lynne Bedwell - Chief Dietician
Kathy Safford - Math Instructor, MCCC
Lauren Rimmer - Director, Medical Records
Paul Richler - Assistant Director, Laboratory
Ronnie Alzheimer - Director, Education Resources
Ellen Anagbo - Language Arts Instructor, MCCC
Mike Husak - Director, Patient Services

DACUM FACILITATOR

Ed Fangman
Maryland DACUM Resource Center
Dundalk Community College

RECORDER

Pat Pfeister

DATE

May 22, 1991

LOCATION

St. Francis Medical Center
Mercer County Community College

The front line manager plans and implements department objectives, makes appropriate decisions, takes responsibility for fulfilling company's mission, evaluates personnel and programmatic performance, and ensures the continuing success of the department and the organization. The first line manager coordinates staff and effort in an organized manner, using human and material resources, time-management skills, flexibility and human relation skills.

Units of Instruction are identified by their generic designation. The panel agreed that the work place basic skills should be modularized and offered in two or three hour units of instruction by grouping common topics. Grouping should be done by the subject matter experts.

The curriculum will include:

READING

GOAL:

Front line managers in these modules will effectively and efficiently read and interpret a variety of materials and apply the knowledge gained in their work place.

TOPICS:

- Inference
- Comprehension
- Interpretation
- Adaptive reading style (strategies)-SQ3R, etc.
- Information gathering
- Reviewing documentation - Reports, etc.
- Proofreading
- Computer printout interpretation
- Vocabulary development

MATERIALS:

- Equipment manuals
- Journals
- Newsletter
- Regulations
- Minutes from professional associations
- Survey manuals

SCIENCE

GOAL:

Except for Medical Terminology, science should be incorporated into the other units as content sources.

TOPICS:

- Anatomy & Physiology
- Medical abbreviations
- Hazardous chemicals - Toxicology - Waste
- Universal precautions
- Appropriate use of terminology
- Technology trends
- Medical terminology

COMPUTATION

GOAL:

After completing the course, the front line manager will have the mathematical tools to analyze data and predict outcomes successfully. The instruction will aid the front line manager in making presentations or in giving justifications. The tools in the units will enable the front line managers to manage their departments efficiently. It will also increase their skills in problem resolution.

TOPICS:

- Decimal computation
- Percentage work
- Data gathering
- Data analysis
- Mean, median, mode
- Projections
- Measurement (international units, metric)
- Dimension analysis
- Word problems
- Formulas (spreadsheets)
- Graphing

INTERPERSONAL

GOAL:

The front line manager will gain further interpersonal skills such as the skills required in interacting with employees and other individuals (health care professionals, peers, agencies, departments) in a professional manner, promoting the develpment of employees and demonstrating leadership and management abilities. Specifically, skills may include counseling employees and providing constructive criticism using basic knowledge of psychology and sociology.

TOPICS:

- Sociology
- Professionalism
- Psycology
- Conducting/Facilitating
- Counseling
- Adaptability
- Sympathy/empathy
- Related skills
- Constructive criticism
- Motivation
- Interviewing
- Teamwork (inter/intra)
- Listening
- Employee/employer relations
- Interpretations of actions
- Leadership
- Managerial skills

ORAL COMMUNICATIONS

GOALS:

Employees will have the ability to effectively:

I. Understand the importance of oral communication and how it affects their work environment and relationships

II. Communicate clearly and concisely with individuals or groups in various circumstances and situations (one-on-one, groups, public speaking)

III. Understand and utilize the dynamics of voice and body language when communicating

TOPICS:

- Formal presentations
- Closure
- Listening
- How to say"NO"
- Questioning (asking/answering)
- Appropriate language
- Soliciting
- Body language
- Giving/taking directions
- One-on-one
- Explaining
- Group
- Discussing
- Voice tone
- Obtaining agreements
- Phone skills
- Public speaking

PROBLEM SOLVING

GOALS:

I. The front line manager will be able to understand the process of problem solving. In doing so, resources will be analyzed (financial and staff) to meet scheduling/staffing needs and prioritizing these needs.
The front line manager will be able to accomplish assigned tasks (time management) as well as assessing workloads and schedules.

TOPICS:

- Time management
- Systematic process
- Prioritizing
- Critical thinking
- Allocating resources (Budget)
- Scheduling

II. The supervisor will be able to identify a problem and/or crisis and deal effectively and efficiently with the problem to reach a solution. Process may be verbal, written, or graphic to reach a solution.

TOPICS:

- Crisis management
- Problem solving
- Trouble shooting
- Conflict resolution
- Preventive measures
- Process analysis and evaluating

III. The front line manager will be able to apply problem solving techniques as related to justifying additional resources, justifying and promoting change and implementing regulations.

TOPICS:

- Justification
- Regulations
- Dealing with "NO"
- Promoting change
- Change process

WRITING

GOALS:

I. Provide employees with a variety of writing types including report, memo, business letters, technical writing, minutes, and documentation. (Type)

II. Provide employees with an awareness of the importance of writing style; with a concentration on the use of concise language, attention to audience, word connotation, and use, technical vs. lay language and graphic presentation. (Style)

III. Provide employees with an understanding of the purpose of the writing task, whether it be to convey information, persuasion, or documentation.

TOPICS:

- Reports
- Outlines
- Mapping
- Boiler plating
- Flowcharting
- Timelines
- Memo
- Policies/procedures
- Requests
- Styles
- Letters
- Technical writing
- Documentation
- Descriptive language
- Meetings minutes
- Writing goals/objectives
- Writing to specificality
- Persuasion
- Forms (create, fill in)
- Informational
- Presentations, in-service
- Putting numbers into words

MECHANICS:

- Organizing thoughts and ideas
- Conciseness
- Audience
- Connotation/denotation
- Technical vs. lay language
- Transposing to meet regulations

DACUM PROFILE FOR CHEMICAL PLANT OPERATORS

RHEIN CHEMIE CORPORATION

DACUM PANEL MEMBERS

John Cohen
Mill Operator

Bob Fries
Mill Operator

Larry Jordan
Mill Operator

Jamie Rodas
Mill Operator

Walt Rodenberger
Mill Operator

DACUM FACILITATOR
Nunzio Cernero
Organization Development Specialist
Mercer County Community College

RECORDER
Michael Tovino
Curriculum Developer
Elaine Weinberg
Director, Workplace Skills Project
Mercer County Community College

DATE
June 9 and 11, 1992

LOCATION
Mercer County Community College

Chemical Plant Operator

The **Chemical Plant Operator** runs machinery, mixes chemicals, packs finished product and maintains a safe, clean environment.

TASKS

	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	Task 9	Task 10
I. LEADMAN										
Set up shift	Review schedule and priority (ies)	Scan work area for safety	Inspect machinery	Review attendance	Assign jobs	Retneve proper lot number	Make proper packing stencil			
Recordkeeping	Channel paperwork (operators)	Record accuracy of measuring instruments	Tag skids	Prepare manpower forms	Handle material (tracking forms)	Prepare accident forms	Prepare shift summary(ies)			
Shift supervision	Verify accuracy of measuring instruments	Set up break/lunch rotation(s)	Assist others if needed – utility man	Perform basic maintenance	Train new operators (where applicable)	Render basic First Aid, if needed				
Coordinate with others	Communicate with production or shift manager	Communicate with leadman from other shifts	Communicate with lab	Communicate with operators						
Housekeeping/safety	Oversee cleaning of work area	Oversee cleaning of personal protection equipment	Oversee cleaning of tools							
II. MILL OPERATOR/BANBURY OPERATOR										
Safety check	Scan work area for safety	Test fire alarm	Test brake – Mill	Read formulation card	Gather other protective equipment	Test personal equipment				
Equipment check	Check cooling system	Check temperature gauge								
Material check	Match code/resource number to formulation card	Match weight to formulation card	Inspect for contamination	Report differences to lead man and laboratory	Correct errors					
Mix raw materials	Weigh materials	Make rubber and binder	Add materials to Mill and Banbury	Operate machine according to formulation card	Sample (lab) – Mill	Drop – Banbury	Sheet off – Mill	Extrude – Banbury	Sample (lab) – Banbury	Pack
Keep records	Complete safety form	Complete batch form – Mill	Complete batch form – Banbury	Complete housekeeping form						
Housekeeping/safety	Clean work area	Clean personal protection equipment	Clean tools	Clean seals, track, and door – Banbury						
Clean up	Lock out machine	Identify type of clean up	Prepare for clean up	Complete clean up						
III. RUBBER COMPOUNDER										
Collect data	Talk with lead man	Read production schedule	Read formulation card	Evaluate inventory	Request more inventory, if needed (first shift)					
Compounding	Inspect "Zapper"	Remove plastic covering from rubber	Cut rubber and then weigh rubber	Set up materials, if required	Place materials behind machines					
Recordkeeping	Complete batch-count form	Complete housekeeping form								
Housekeeping/safety	Clean work area	Clean personal protection equipment	Clean tools							
IV. EXTRUDER OPERATOR										
Equipment check	Verify temperature (see formulation card)	Inspect cooling valves	Verify screen size	Inspect dust collectors	Verify proper dies					
Operate machine	Set extruder speed	Adjust line speed	Adjust cutter	Change screens						
Housekeeping/safety	Clean work area	Clean personal protection equipment	Clean tools							
V. PELLETIZER OPERATOR										
Equipment check	Verify temperatures (see formulation card)	Inspect water valves	Inspect blades	Inspect dust collectors	Inspect level of water tank	Inspect dryer	Inspect Wittie (strainer)	Test run the machine		
Operate machine	Look for contamination	Feed material	Inspect properties of pellets	Adjust blades as needed						
Housekeeping/safety	Clean work area	Clean personal protection equipment	Clean tools							

TRAITS AND ATTITUDES

WILL BE:

- Adaptable to methods, techniques
- Accepting of working environment
- Conscientious
- Cooperative
- Courteous
- Eager
- Flexible
- Open-minded
- Organized
- Self-checking
- Self-pacing
- Team worker
- Willing to accept dangerous work, environment

TOOLS AND EQUIPMENT

- Air Chisel
- All Wrenches
- Broom
- Calculator
- Circular Saw
- Clip Boards
- Computer
- Crowbar
- Drill
- Forklift
- Hammer
- Knives
- Packing Material
- Packing Table
- Pipe Wrench
- Razor Knife
- Scales
- Scraper
- Screwdriver
- Shovel
- Squeegee
- Tape
- Vise Grip
- Wire Brush
- Writing Instruments

SAFETY EQUIPMENT

- Boots
- Booties
- CO_2 Extinguisher
- Eye Wash
- Fire Extinguisher
- Glasses
- Gloves
- Respirator
- Sleeves
- Shower
- Tarbon Cream
- White Cap
- White Suits

KNOWLEDGE AND SKILLS

READING/WRITING

- Forms
- Reports
- English as a Second Language
- Labels
- Terminology (e.g., chemicals and plant terms)

MATH

- Addition
- Multiplication
- Percentages (decimal points)
- Subtraction
- Division
- Pounds and Ounces
- Grams/Metric System

APTITUDE

- Communication Skills
- Comprehension
- Critical Thinking
- Decision Making
- Hazardous Materials
- Hygiene Rules
- Instruments
- Lotus 1-2-3
- Mechanical
- Perform Under Stress
- Problem Solving
- Read Charts
- Safety Rules
- Self-Checking
- Wordperfect

Chemical Plant Operator

The **Chemical Plant Operator** runs machinery, mixes chemicals, packs finished product and maintains a safe, clean environment.

TASKS

	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	Task 9	Task 10
VI LABORATORY										
Set up computer	Contact lead man for data	Enter data into computer	Read product card	Identify required test						
Set up equipment	Set up elasticity test	Pre-weigh master batch, if needed	Set up Rheometer	Pre-weigh (g) colors	Set up "Mooney" (viscosity) machine					
Inspection (dispersion, gravity) etc.	Get samples	Complete dispersion test	Perform elasticity test	Approve or disapprove batch	Run other tests, if necessary	Save sample	Number and label sample			
Computer recordkeeping	Log in time of batch	Record test results	Record box count							
Housekeeping/safety	Clean work area	Clean personal protection equipment	Clean tools							
VII UTILITY MAN										
Set up raw materials	Review production schedule(s)	Confirm raw materials available in plant	Request raw materials, as needed	Position materials at machines	Collect unused materials	Weigh unused materials	Ship unused materials to warehouse	Unload truck		
Recordkeeping	Consult **Prism** system	Prepare forms for hazardous wastes								
Handle waste	Collect waste materials	Separate waste materials	Discriminate hazardous from non-hazardous waste	Contain and label waste materials	Weigh waste containers	Store waste materials appropriately				
Housekeeping/safety	Clean lunch and locker rooms	Clean personal safety equipment	Clean white caps	Wash protective garments	Clean Vortex					
Run errands	Obtain items from varied sources (e.g., warehouse, offices, mailroom)	Obtain items from outside sources								
VIII. PACKER										
Identify proper material	Pick proper box sizes	Pick proper tape color	Pick proper hazard labels	Review formula card/schedule for added packing instructions						
Pack	Test scale	Stencil boxes	Assist Mill operator in removing batch	Inspect product	Weigh product	Pack product	Load skid	Move to staging area	Pack, mark box, store in proper location	
Recordkeeping	Complete packing sheet	Complete housekeeping form								
Housekeeping/safety	Clean work area	Clean personal protection equipment	Clean tools							
IX. WAREHOUSE										
Receiving	Obtain purchase order	Confirm details of shipment against purchase order	Unload truck	Store in appropriate location(s)	Record location(s)					
Transfer materials to plant	Discuss priorities for day	Read materials list	Load truck	Operate truck	Obtain signature for transfer sheet at plant					
Transfer material from plant to warehouse	Load truck	Complete transfer sheet	Operate truck	Unload truck	Store materials appropriately					
Shipping	Read "pick" ticket	Locate product	"Pull" product(s)	Move product(s) to staging area	Assembly order	Stencil order to proper code	Wrap order	Match order to Bill of Lading	Load trucks	
Housekeeping/safety	Clean work area	Clean personal protection equipment	Clean tools							
Recordkeeping	Maintain **Prism** system									
Forklift	Drive materials to appropriate location									

WORKPLACE SKILLS PROJECT

CURRICULUM
RHEIN CHEMIE CORPORATION

CHEMICAL PLANT OPERATORS

DACUM PANEL MEMBERS

Ellen Benowitz - Faculty, MCCC
John Cohen – Mill Operator
Wayne Eggert - 2nd Shift Supervisor
Red Hummel - 3rd Shift Supervisor
Larry Jordan - Mill Operator
Michael Tovino - Curriculum Developer

DACUM FACILITATOR

Walter A. Meyer
Director, Center for Training and Development
Mercer County Community College

RECORDER

Elaine Weinberg
Director, Workplace Skills Project
Mercer County Community College

DATE

June 17, 1992

LOCATION

Mercer County Community College

The **CHEMICAL PLANT OPERATOR** runs machinery, mixes chemicals, packs finished product and maintains a safe, clean environment.

The curriculum will include:

READING

GOAL:

The Chemical Plant Operator will be able to recognize, comprehend and interpret all written materials necessary to successfully carry out job responsibilities.

TOPICS:

- Compare and contrast information on formulation card and other locations
- Interpret company terminology
- Read personal protection cards
- Read schedule ("Pick" tickets)
- Read materials/supplies needed
- Read production schedules (to keep areas supplied)
- Read scales (digital, decimals to 2 places)
- Discriminate numeric and alphabetic differences
- Follow directions
- Determine similarities and differences on sheets
- Scan sheet
- Read MSDS materials
- Verify resource/code number
- Read and interpret company communication

WRITING

GOAL:

The Chemical Plant Operator will be able to use proper punctuation, spelling, and grammar to complete correctly any forms, routine paperwork, and special reports.

TOPICS:

- Complete stencils with initials, weight, Q.C. number
- Complete notetaking (e.g., problems on floor)
- Complete accident reports
- Prepare charts, stencils, forms, tracking forms (detailed)
- Spell correctly
- Classify and label waste material

COMPUTATION

GOAL:

The Chemical Plant Operator will be able to calculate the amount of supplies needed to mix compounds, weigh and measure waste materials, interpret word problems, complete information charts, interpret graphs, and use decimals and metric measures as needed.

TOPICS:

- Calculate amount of supplies
- Calculate number of boxes
- Weigh and measure waste material
- Calculate decimals
- Calculate using metric system - kilograms and grams
- Calculate waste proportion (certain amount waste per run)
- Complete charts, stencils, forms
- Perform word problems
- Add/subtract/multiply/divide
- Interpret graphs
- Use analog and digital gauges

TECHNOLOGY IN THE WORKPLACE

GOAL:

The Chemical Plant Operator will be able to comprehend chemical processes and procedures, understand and apply safety procedures in the workplace, read gauges, inspect cooling lines, equipment, raw materials and finished products, and separate and contain hazardous and nonhazardous waste.

TOPICS:

- Interpret temperature gauge
- Interpret fahrenheit
- Understand MSDS chemical reactions
- Recognize hazardous/nonhazardous waste materials
- Select proper waste containers
- Select proper fire equipment
- Check dispersion/elasticity
- Determine properties of elasticity and viscosity
- Determine proper cleaner for each chemical
- Predict chemical reaction
- Inspect water line

ORAL COMMUNICATION

GOAL:

The Chemical Plant Operator will verbally and nonverbally interact with workers at all levels of the organization, and develop skills in the areas of active listening, giving and receiving instructions, discussing work/job needs/requirements, and perform as a team.

TOPICS:

- Listen, ask questions (supervisors, warehouse co-workers)
- Tell workers what jobs to do (give directions/instructions)
- Communicate with supervisor (verify changes/material/process)
- Communicate variations of procedures to workers
- Oral communication of changes (e.g. safety)
- Communicate basics of the job
- Communicate with production and shift managers, lab, and leadman from other shifts, peers
- Communicate with leadman or shift supervisor for supplies

PROBLEM SOLVING

GOAL:

The Chemical Plant Operator will be able to state the problem, identify and test alternatives, select the best solution, implement action and evaluate results.

TOPICS:

- Make hypotheses/draw conclusions
- Decision making (priorities, materials)
- Set shift schedules
- Check and correct weight differences
- Make visual discrimination of contamination in bags
- Adapt procedures to immediate circumstances/improvise
- Judge validity of formulation cards
- Determine how to separate waste
- Make visual check of pellets for specifications and contamination

PROBLEM SOLVING

GOAL:

The Chemical Plant Operator will develop the input/output skills necessary to effectively use the computer system.

TOPICS:

- Keyboarding skills
- Data entry skills
- **Prism** system
- Print/store hard copy

ENGLISH AS A SECOND LANGUAGE

GOAL:

The Chemical Plant Operator will be able to speak, understand and communicate in English in order to function effectively, efficiently and safely in the workplace.

TOPICS:

- Follow English directions
- Communicate problems in English
- Write/read English

NOTES

QUALITY OPERATOR

Curriculum for GENERAL MOTORS

DACUM PANEL MEMBER

Mary Lou Arcamone - Department 8, Unit: Door Handles
Raymond Bayzath - Department 5, Unit: Seat Adjusters
Robert J. Bendel - Department 8, Unit: Lew Handles
Gerard J.Buonanno-Department 9,Unit: Glass Window Channels
Debbie M.Gurba-Quality Operator-Department 1,Unit: L-Body
Sarah C. Inniss - Department 5, Unit: Seat Adjusters
Jim Moses - Department 5, Unit: Manual Seat Adjusters
Timothy J.Tapley-Quality Operator,Department 4,Unit: Plastics
Bob Young - Department 8, Unit: Die Cast

DACUM FACILITATOR

David Flumbaum
Maryland DACUM Resource Center
Dundalk Community College

RECORDER

Mamtha Rau

DATE

May 15-16, 1991

LOCATION

General Motors Inland Fisher Guide
Mercer County Community College

DACUM COMPETENCIES

QUALITY OPERATOR

The **QUALITY OPERATOR** is a part of a team that communicates with others to perform various jobs such as machine operations, assembly, inspection, packing and data collection to produce a quality, world-class product.

TASKS

A.	MAINTAIN A CLEAN AND SAFE AREA	1. Wear proper safety equipment	2. Follow safety regulations	3. Perform a visual check on equipment	4. Perform safety checks on equipment	5. Maintain a general awareness of general plant safety	6. Report/describe unsafe conditions to supervisor and or safety representative	7. Read and interpret hazardous materials handling handbook or labels on materials	8. Participate in safety training programs
		9. Perform general housekeeping duties in area							
B.	COMMUNICATE WITH OTHERS	1. Respect co-workers needs and feelings	2. Participate effectively in work teams	3. Understand the process with which you are working	4. Explain machine operations and procedures to co-workers	5. Employ different communication skills for different situations	6. Participate in meetings	7. Make short oral presentations	8. Inform supervisor and co-workers of problems	9. Resolve conflicts with supervisors and co-workers
		10. Address complaints raised in PRR's with outside customers	11. Address complaints rasied by internal customers	12. Complete form to request services for maintenance	13. Complete requisition forms	14. Fill out various work-related forms (vacation, shift preference, etc.)	15. Follow shop rules and regulations			
C.	SET UP THE WORKSTATION	1. Identify the work and standard that needs to be performed	2. Check to make sure the right parts/raw stock are available	3. Secure needed tools and equipment	4. Inform supervisor or stockman of needed parts	5. Reset work station for change overs				
D.	MANUFACTURE THE PRODUCT	1. Follow the job description card for each machine	2. Identify correct parts to be assembled	3. Load the machine	4. Cycle the machine	5. Perform manual assembly operations	6. Inspect the processed part	7. Pass the part on to the next operation	8. Perform re-work and salvage operations	9. Discard scrap parts
E.	INSPECT PRODUCTS	1. Follow posted procedures for periodic quality checks	2. Verify parts against sample board	3. Check work with a variety of gauges	4. Compare work against shadow graph if required	5. Check work with micrometer if required	6. Manually check functioning of parts	7. Comply with quality standards	8. Complete a first-piece inspection and tag	
F.	PACT PARTS	1. Follow posted packing procedures	2. Insure that proper containers and packing materials are available	3. Perform 100% visual inspection on parts for obvious defects	4. Perform periodic gauge fits	5. Inform supervisors and co-workers of quality problems	6. Fill out shipping labels	7. Re-inspect and re-pack questionable work if necessary		
G.	FILL OUT LOG BOOKS	1. Complete down-time log	2. Complete a scrap log	3. Complete a preventive maintenance log	4. Complete production log	5. Keep process control records				
H.	UTILIZE COMPUTERS	1. Take daily inventories	2. Enter information from log books into computer	3. Create charts and graphs	4. Create statistical reports	5. Manipulate data using software programs				

TRAITS AND ATTITUDES

- Conscientious
- Tactful
- Positive attitude
- Get along with others
- Thick-skinned
- Patience
- Flexible
- Take pride in one's work
- 100% effort on assigned task
- Dependable
- Trustworthy
- Open-minded
- Willingness to help others
- Take interest in the job
- Sense of humor
- Common courtesy
- Willingness to do an undesirable job

TOOLS AND EQUIPMENT

- Safety equipment
- Hand tools
- Gauges/micrometers
- Packing materials
- Benders
- Presses (palm and foot)
- Welders (palm and foot)
- Riveters
- Power hand truck
- Containers/trucks
- Chairs/platforms
- Fans
- Power saw
- Cycle machine
- Conveyor belts
- Racks
- Computer
- Software
- Calculator
- Log books
- Work benches

KNOWLEDGE AND SKILLS

- Reading/comprehension skills
  - Manuals
  - Job description/procedures
  - Bulletin boards
  - Newsletter
  - Safety instructions
  - Packing procedures
  - Gauges
  - Statistical reports & information
- Reading/interpreting graphs and charts
- Math
  - Add/subtract/multiply/divide
  - Percentages
  - Decimals
- Communication skills
- Writing skills
  - Complete various forms/labels
- Product knowledge
- Problem-solving skills
- Shop rules and regulations
- Safety regulations/hazardous materials
- Physical coordination
- Computer knowledge
- Computer software

WORKPLACE BASIC SKILLS

GENERAL MOTORS
Quality Operator

DACUM PANEL MEMBER

Nick Biglasco - Supervisor, Manufacturing - Department 1
Robert Brady - General Supervisor, Manufacturing
Debbie M. Gurba - Quality Operator, Department 1, Unit: L-Body
Melanie Litt - Instructor, Language Arts, MCCC
Timothy J.Tapley-Quality Operator, Department-4,Unit: Plastics
Merle Wilhide - Supervisor, Manufacturing
Lesley Wookcock - Instructor, Mathematics, MCCC

DACUM FACILITATOR

David Flumbaum
Maryland DACUM Resource Center
Dundalk Community College

RECORDER

Mamtha Rau

DATE

May 22, 1991

LOCATION

General Motors Inland Fisher Guide
Mercer County Community College

LANGUAGE ARTS

DESCRIPTION:

Students will be able to be more effective in listening, speaking, reading and writing skills, related to specific tasks required on the job.

GOALS:

(1) Write a variety of short reports, procedures, explanations
(2) Comprehend written documents such as job manuals, instruction sheets
(3) Follow verbal instructions (listening comprehension)
(4) Speak with co-workers, supervisors in clear, effective manner

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ELEMENTS:

READING:

- Interpretation of safety instructions, shop rules and regulations, and procedures
- Vocabulary/Terminology (General & Specific)
- Coherency
- Visual discrimination/observation (sample boards)
- Locating specific information
- Check lists, forms, procedures, logs
- Follow procedures/directions
- Comprehension of standards
- Spelling, grammar, sentence structure, sequence
- Labels
- Tool numbers, tools and equipment

WRITTEN/ORAL COMMUNICATION:

- Listening, Comprehension, Active Listening
- Outlining
- General Reporting - Safety, Inspections
- Summaries
- Note Taking
- Forms, Log books
- Vocabulary
- Documentation - Attribute data, Variable data
- Verification
- List Making
- Record Findings (Inspections)
- Coherency
- Explanations/descriptions of problems, grievances
- Speaking: Oral presentations (Quality circle)
- Following/giving directions
- Meeting participation
- Open mindedness
- Tactful
- Common courtesy
- Explanation of Tools and Equipment
- Argumentation
- Sense of Humor

SCIENCE: HOW DO MACHINES REALLY WORK

DESCRIPTION:

Students will be able to determine the relationship of scientific or technological priniciples and their applications to the workplace.

GOALS:

(1) Develop better understanding of hazardous materials
(2) General knowledge of fire fighting theory
(3) Develop understanding of principles related to tools/equipment
(4) Consider impact of current and future technology on workplace

ELEMENTS:

. Hazardous materials
. Fire prevention, fire fighting techniques
. Tools and Equipment
. Impact of technology on work place (automation)
. Computer applications hardware, software

BASIC MATH

DESCRIPTION:

Students will be able to perform basic operations of arithmetic, construct graphs and charts, and read measurements. The focus of the course will be application found at Inland Fisher Guide.

GOALS:

(1) Perform basic arithmetic operations with whole numbers, decimals, and fractions using manual and calculator methods
(2) Perform rate calculations
(3) Calculate and interpret percents
(4) Construct and comprehend graphs and charts
(5) Read and interpret measurements

ELEMENTS:

- Add, subtract, multiply and divide whole number, decimals, percentages and fractions
- Calculators
- Measurement - Gauges (metric/SAE)
- Rates (production/rejection) related to time
- Graphs/charts
- Projections (parts in inventory)
- Statistics (ratios/limits/percents)
- Conversions

INTERPERSONAL/PERSONAL SKILLS

DESCRIPTION:

Students will be able to contribute to the improvement of the work environment and relationships, as well as enhance personal life skills, traits and attitudes.

GOALS:

(1) Develop positive personal traits and attitudes
(2) Enhance working relationships among co-workers
(3) Improve and maintain positive work environment
(4) Develop personal life skills to include time management, stress management, and goal setting
(5) Increase understanding of business operations and practices of Inland Fisher Guide

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ELEMENTS:

- Knowledge of Inland Fisher Guide (IFG) - Business operations
- Support and concern for others
- Relate to supervisor/safety representative
- Goal setting
- Stress/Time management
- Physical/Visual demonstrations (production procedures, inspections, operating machines)
- Interaction between people
- Description of problems, conflicts, concerns
- Sensitivity to others
- Coordinate work flow
- Tactful, common courtesy, all traits and attitudes
- Communication in the workplace
- Morale/Climate of the workplace